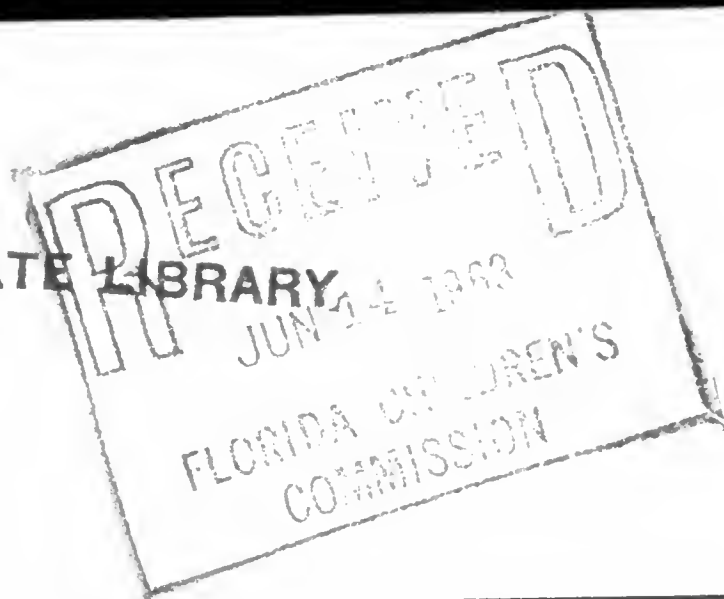


1962



FLORIDA STATE LIBRARY



FLORIDA STATE BOARD OF HEALTH

1962

ANNUAL REPORT

FG14.25
144

Annual Report

State Board of Health

State of Florida

1962

The following reports will be published separately:

SUPPLEMENT I—FLORIDA VITAL STATISTICS, 1962

SUPPLEMENT II—FLORIDA MORBIDITY STATISTICS, 1962

WILSON T. SOWDER, M.D.

STATE HEALTH OFFICER

JACKSONVILLE, FLORIDA

The Honorable Eugene G. Peek, M.D., President
Florida State Board of Health
Ocala, Florida

Dear Dr. Peek:

I herewith submit the annual report of the Florida
State Board of Health for the year ending December 31,
1962.

Sincerely yours,
ALBERT V. HARDY, M.D., DR.P.H.
Acting State Health Officer
(October 16, 1961 through
December 31, 1962)

May 1, 1963
Jacksonville, Florida

Respectfully forwarded,
WILSON T. SOWDER, M.D., M.P.H.
State Health Officer
(Returned from leave of absence
on January 1, 1963)

His Excellency, Farris Bryant
Governor of Florida
Tallahassee, Florida

Sir:

I beg to hand you herewith a report of the Florida
State Board of Health for the period January 1, 1962, to
December 31, 1962, inclusive.

Respectfully submitted,
EUGENE G. PEEK, M.D.
President

May 1, 1963
Ocala, Florida

The Honorable Eugene G. Peek, M.D., President
Florida State Board of Health
Ocala, Florida

Dear Dr. Peek:

I herewith submit the annual report of the Florida
State Board of Health for the year ending December 31,
1962.

Sincerely yours,
ALBERT V. HARDY, M.D., DR.P.H.
Acting State Health Officer
(October 16, 1961 through
December 31, 1962)

May 1, 1963
Jacksonville, Florida

Respectfully forwarded,
WILSON T. SOWDER, M.D., M.P.H.
State Health Officer
(Returned from leave of absence
on January 1, 1963)

His Excellency, Farris Bryant
Governor of Florida
Tallahassee, Florida

Sir:

I beg to hand you herewith a report of the Florida
State Board of Health for the period January 1, 1962, to
December 31, 1962, inclusive.

Respectfully submitted,
EUGENE G. PEEK, M.D.
President

May 1, 1963
Ocala, Florida

Members of the
FLORIDA STATE BOARD OF HEALTH

EUGENE G. PEEK, M.D., *President*

Ocala

T. M. CUMBIE, Ph.G., *Vice President*

Quincy

ASHBEL C. WILLIAMS, M.D.

Jacksonville

F. P. MEYER, D.D.S.

St. Petersburg

W. S. HORN, D.O.

Palmetto

OFFICIAL STAFF FLORIDA STATE BOARD OF HEALTH

December 31, 1962

DIRECTORS

State Health Officer (on leave).....	Wilson T. Sowder, M.D., M.P.H.
Acting State Health Officer.....	Albert V. Hardy, M.D., Dr. P.H.
(Assistant State Health Officer)	
Assistant State Health Officer.....	Clarence M. Sharp, M.D.
(Acting Director of Bureau of Preventable Diseases)	
Assistant State Health Officer.....	William L. Wright, M.D., M.P.H.
Division of Personnel.....	Miles T. Dean, M.A.
Division of Health Education.....	Elizabeth Reed, R.N., B.S.
Librarian.....	Tomma Pastorett, B.S., M.A.
Bureau of Finance and Accounts.....	Fred B. Ragland, B.S.
Assistant Director.....	Paul R. Tidwell, B.B.A.
Purchasing Agent.....	G. Wilson Baltzell, B.S.
Bureau of Vital Statistics.....	Everett H. Williams, Jr., M.S. Hyg.
Bureau of Local Health Services.....	William L. Wright, M.D., M.P.H.
Assistant Director.....	Hubert U. King, M.D.
Division of Public Health Nursing.....	Ruth E. Mettinger, R.N.
Division of Sanitation.....	A. W. Morrison, Jr., R.S.
Division of Nutrition.....	Mary B. Deaver, M.S.
Bureau of Preventable Diseases.....	James O. Bond, M.D., M.P.H.
(Acting Coordinator of Research and Training)	
Division of Tuberculosis Control.....	Dwight W. Wharton, M.D.
Division of Radiological and Occupational Health.....	Edwin G. Williams, M.D.
Division of Epidemiology (Acting).....	C. M. Waters, M.D.
Division of Veterinary Public Health (Acting).....	William G. Winkler, D.V.M.
Bureau of Special Health Services.....	Simon D. Doff, M.D., M.P.H.
Division of Hospitals and Nursing Homes (Acting).....	George W. Hoover, M.D.
Division of Chronic Diseases.....	James E. Fulghum, M.D.
Bureau of Laboratories.....	Nathan J. Schneider, Ph.D.
Miami Regional Laboratory.....	Warren R. Hoffert, Ph.D.
Orlando Regional Laboratory.....	Max T. Trainer, M.S.
Pensacola Regional Laboratory.....	Emory D. Lord, Jr., B.S.
Tallahassee Regional Laboratory.....	Robert A. Graves, M.S.
Tampa Regional Laboratory.....	H. D. Venters, B.S.
West Palm Beach Regional Laboratory.....	Lorraine Carson
Bureau of Maternal and Child Health.....	Lorenzo L. Parks, M.D., M.P.H.
Bureau of Mental Health.....	Wayne Yeager, M.D., M.P.H.
Bureau of Dental Health.....	Floyd H. DeCamp, D.D.S.
Bureau of Entomology.....	John A. Mulrennan, Sr., B.S.A.
Entomological Research Center.....	Maurice W. Provost, Ph.D.
Bureau of Sanitary Engineering.....	David B. Lee, M.S. Eng.
Assistant Director.....	Sidney A. Berkowitz, M.S. Eng.
Division of Water Supply.....	John B. Miller, M.P.H.
Division of Waste Water.....	Ralph H. Baker, Jr., M.S. San. Eng.
Division of Special Services.....	Charles E. Cook, C.E.
Division of Industrial Waste.....	Vincent D. Patton, M.S.S.E.
Bureau of Narcotics.....	Frank S. Castor, Ph.G.

DIRECTORS OF COUNTY HEALTH DEPARTMENTS

December 31, 1962

Alachua.....	Edward G. Byrne, M.D., M.P.H.
Bay.....	A. F. Ullman, M.D.
Brevard.....	T. Paul Haney, M.D., Dr. P.H.
Broward.....	Paul W. Hughes, M.D., M.P.H.
Collier.....	Clyde L. Brothers, M.D.
Dade.....	T. E. Cato, M.D., M.P.H.
Duval.....	Thomas E. Morgan, M.D., M.P.H.
Escambia.....	J. C. McSween, M.D.
Hillsborough.....	John S. Neill, M.D., M.P.H.
Lake.....	J. Basil Hall, M.D., M.P.H.
Lee.....	Joseph W. Lawrence, M.D.
Leon.....	Joseph M. Bistowish, M.D., M.P.H.
Manatee.....	Frederick K. Allen, M.D.
Marion.....	P. H. Smith, M.D.
Monroe.....	John L. Ingham, M.D.
Okaloosa.....	B. R. Provost, M.D.
Orange.....	W. N. Sisk, M.D., M.P.H.
Palm Beach.....	C. L. Brumback, M.D., M.P.H.
Pinellas.....	William C. Ballard, M.D., M.P.H.
Polk.....	James F. Cason, M.D.
St. Johns.....	James C. Loranger, M.D.
Santa Rosa.....	A. E. Harbeson, M.D.
Sarasota.....	R. H. Veldhouse, M.D.
Seminole.....	Frank Leone, M.D.
Volusia.....	D. V. Galloway, M.D., M.P.H.
Baker-Nassau.....	B. F. Woolsey, M.D.
Calhoun-Jackson.....	Terry Bird, M.D., M.P.H.
Flagler-Putnam.....	James F. Sayers, M.D.
Gadsden-Liberty.....	B. D. Blackwelder, M.D., M.P.H.
Jefferson-Wakulla.....	Karl L. Van Horn, M.D.
Madison-Taylor.....	Charles L. Mattes, Jr., M.D.
Osceola-Indian River.....	C. C. Flood, M.D., M.P.H. (Acting Director)
Pasco-Sumter.....	William L. Wright, M.D., M.P.H.
Bradford-Clay-Union.....	A. Y. Covington, M.D., M.P.H.
Charlotte-DeSoto-Hardee.....	E. J. McLaughlin, M.D.
Citrus-Hernando-Levy.....	Harold F. Bonifield, M.D., M.P.H.
Columbia-Hamilton-Gilchrist.....	George M. Dame, M.D.
Franklin-Gulf.....	Willa Dean Lowery, M.D. (On Educational Leave)
Glades-Hendry-Highlands.....	William F. Hill, Jr., M.D., M.P.H.
Holmes-Walton-Washington.....	Robert V. Schultz, M.D., M.P.H. (Acting Director)
Martin-Okeechobee-St. Lucie.....	Neill D. Miller, M.D.
Suwannee-Dixie-Lafayette.....	J. Harland Paul, M.D., M.P.H.

TABLE OF CONTENTS

	Page
General Administration (including Activities of the Board; Research Coordination; Scholarships; Divisions of Personnel and Health Education; and General Data Processing)	1
Bureau of Local Health Services (including Divisions of Public Health Nursing, Sanitation and Nutrition; and Accident Prevention Program)	24
Bureau of Vital Statistics (including Statistical Section)	64
Bureau of Maternal and Child Health	80
Bureau of Preventable Diseases (including Divisions of Epidemiology [Venereal Disease Control Program], Radiological and Occupational Health, Tuberculosis Control; and Veterinary Public Health)	91
Bureau of Laboratories	124
Bureau of Special Health Services (including Divisions of Chronic Diseases and Hospitals and Nursing Homes; and the Hospital Service for the Indigent Program)	142
Bureau of Sanitary Engineering (including Divisions of Water Supply, Waste Water, Special Services; and Industrial Waste)	169
Bureau of Mental Health (including Florida Council on Training and Research in Mental Health)	202
Bureau of Narcotics	215
Bureau of Entomology (including Entomological Research Center)	219
Bureau of Dental Health	233
Bureau of Finance and Accounts (including Purchasing and Property)	238
Articles by Staff Members	250

GENERAL ADMINISTRATION

1

WILSON T. SOWDER, M.D., M.P.H., State Health Officer
(On leave entire calendar year)

ALBERT V. HARDY, M.D., Dr.P.H., Acting State Health Officer

C. M. SHARP, M.D., Assistant State Health Officer

WILLIAM L. WRIGHT, M.D., M.P.H., Assistant State Health Officer

A statement by the Acting State Health Officer, Albert V. Hardy, M.D., Dr.P.H.:

The year under review will be remembered by many as an exceptional one in public health in Florida. This was the full year during which Florida's health officer of 16 years was on leave. It was the year of the encephalitis outbreak, hopefully to be recalled as the one major outbreak in the state of this serious disease. These and other matters which came forcefully to administrative attention are reviewed here.

The provision of leadership on an interim basis involves problems. A static hold-the-line policy was considered not in the best interest of public health. Rather the attempt was to move forward through the broadest practicable cooperative action of senior staff. Generous and congenial participation and assistance is acknowledged with appreciation. Accomplishments are to be credited to staff; the weaknesses may be charged to the interim leadership. The interesting and stimulating experiences, rather than the problems and frustrations, are prominent in memory.

The dominant event of the year was the encephalitis epidemic which is considered in adequate detail elsewhere in this report. Personnel of four county health departments (CHDs) and three bureaus were involved in study and control. These were joined by the mosquito control districts and by the laboratory and epidemiology divisions of the Communicable Disease Center (CDC), U. S. Public Health Service. In-state and out-of-state consultants aided. The prompt establishment of a field virological laboratory in space provided by the Tampa Tuberculosis Hospital was a remarkable accomplishment. Staff and equipment were made available through the cooperation of CDC. The resources of the mosquito control districts were used in the broad and intensive control activities. There were outstandingly effective activities but problems also are worthy of note. There were problems in working relationships in the county with the earliest cases which pointed to a need for a clearer definition and understanding of the inter-related responsibilities of state and county personnel in epidemic control. The urgent need for expert aid in the handling of the news in a dramatic epidemic situation became evident also. This was provided when weaknesses were obvious. It solved problems but in retrospect it is apparent that assistance of this type may be needed from the earliest threat of an epidemic. With vigorous efforts, and probably because of them, the epidemic subsided quite promptly. Its occurrence together

with the two small outbreaks in 1959 and 1961 demanded the development of ongoing encephalitis study and control programs. A request for a National Institutes of Health research grant was given special and prompt consideration. A five-year study program was approved and began on December 1.

The initial grant of funds in the broad fields of "Chronic Illness and Aging" was received in late 1961; funds were substantially increased in 1962. The planning and initiation of this new program demanded much attention in 1962. Major emphasis was given to the development of home nursing services. Due in part to weaknesses in communication, this program was not always acceptable to medical societies. However, many counties, as described elsewhere, adopted the combined home nursing program. Separate divisions of adult health were organized to develop appropriate programs to serve the health needs of the large populations of aged in Dade and Pinellas Counties.

In obtaining official approval of these and other programs partially supported by federal grants, it became increasingly evident there was hesitancy in accepting such funds by the Budget Director's office and the Budget Commission. In part this appeared due to past experience that when federal funds terminated state funds were requested to continue the programs. Hence in approval of federally supported activities, there was the specific stipulation that this did not imply any obligation to replace federal with state funds should the former no longer be available. It became evident also there was a further reservation due to the practice of paying from state funds the agency's contribution to social security and retirement for persons deriving salary from federal funds. This situation led to a full exploration of what had heretofore been a not clearly stated problem. A program to gradually provide from federal funds for these contributions was evolved and initiated.

Medical service to the Cubans is predominantly a Dade County problem and program. However, budgeting for this involved administrative participation of state personnel. During the year an activity which had been assured of support only on a month-to-month basis, attained an appropriate annual budget. This provided for the medical care needs but there was limited success in seeking supplementary support for the community health services required by the more than 100,000 political refugees with very limited economic resources.

The denial or withdrawal of license for hospital or nursing home involved time-consuming and disturbing administrative problems. Complaints of damage by air pollution were highly vocal in Polk County, and this complex matter was a constant source of concern.

The Board met jointly with the Merit System Council in August and with the Air Pollution Control Commission in December. These

resulted in a better understanding of problems in which there is joint interest and responsibility.

In mid-December word was received that the State Health Officer would return from leave on January 1, an announcement which was received with great relief by the Acting State Health Officer, and with great pleasure and satisfaction by him and the entire staff.

STAFF ASSISTANCE

Assistance to the State Health Officer is available from all staff members, but attention is directed here to that provided by staff specialists reporting directly to him.

A health program analyst has served longest in this capacity. His major responsibility is to make available those factual data required for decision making. He is on call to aid in the study of a variety of problems. He functions also in a liaison capacity and maintains particularly close contact with the Interim Legislative Committee on Health and Welfare and other legislative bodies. He serves also as the Board of Health representative on the Florida Milk Commission.

The internal auditor is available for the study of fiscal problems. His major responsibility is to assure that fiscal matters are handled in a business-like manner wholly acceptable to the state and federal auditors. During the latter half of the year he had an assistant who devoted major attention to the CHDs. Audits were completed on 43 CHDs in the six months since this added assistance has been available. Defects have been chiefly in procedure. Some quite unacceptable practices were revealed and have been corrected.

Attention was directed also to developing a basic bookkeeping system which is proving both acceptable and effective (see Bureau of Local Health Services elsewhere in this Report).

The staff attorney during the year had as his major task the re-drafting of the Sanitary Code and all official rules and regulations which according to the newly enacted Florida administrative code must be deposited with and published by the Secretary of State. This was a very time consuming and exacting responsibility.

A variety of other legal problems demanded attention, but of even more importance consultation was provided to foster the most favorable handling of problems with potential legal implications.

Late in the year a Coordinator of Training was added. It has been long recognized that such a position was needed.

The full-time news director prepared and distributed 125 news items and other releases to the press, radio, television and magazines.

This contributed substantially to the dissemination of information to the public.

ACTIVITIES OF THE BOARD

Ashbel Williams, M.D., member of the Board of Health, submitted his resignation in 1962. A replacement for Dr. Williams was not appointed by the Governor during the year.

February 13—Jacksonville

1. Approved three short term projects to be supported out of Maternal and Child Health (MCH) Funds (Children's Bureau): assistance in polio immunization program in Hillsborough County; contract for movie on health problems of the migrant laborers; determination of possible use of well-trained Cuban physicians in the MCH program throughout the state.
2. Authorized Albert Hardy, M.D., to discuss the Civil Defense Program with the Governor in order to determine how much was expected of the State Board of Health in this program.
3. Approved public health applicants for postgraduate training for September 1962-63.
4. Discussed proposed legislative recommendations to present to Interim Legislative Committee on Health and Welfare.
5. Approved of a Merit System study and certain recommendations with regard to it.
6. Approved a revision of Chapter XXIV, School Sanitation, of the Sanitary Code.
7. Appointed a Committee on Demographic Studies.
8. Elected officers—retaining the present incumbents: E. G. Peek, M.D., President, and T. M. Cumbie, Ph.G., Vice President.

April 8—Washington, D. C.

1. Approved a revision of Chapter VI, Privies, of the Sanitary Code.
2. Approved a revision of Chapter VII, Section 6, of the Sanitary Code.
3. Approved a study of Iodination of Water to be conducted by the University of Florida, the Bureau of Sanitary Engineering and the Bureau of Laboratories.
4. The Board discussed "sabbatical leaves" for study and observation and adopted a plan whereby individual cases for study leave would be considered by them and approved only if a worthwhile plan for study and observation of public health programs is presented.

5. Approved changes in the Hospital Service for the Indigent rules and regulations.
6. Authorized Dr. Hardy to continue working with the State Hotel and Restaurant Commission on an agreement.
7. Authorized Dr. Hardy to set up a meeting with the Merit System Council and the Board of Health.
8. Approved of a vacation for Dr. Hardy the latter part of August and early September for a period of three weeks.
9. Approved the recommendations of the Ad Hoc Polio Advisory Committee.

May 10—Miami Beach

1. Held a hearing regarding sanitary facilities in subdivisions in Monroe County.
2. Approved revisions in regulations and standards for licensing of hospitals.
3. Approved of Miss Elizabeth Reed accepting a Travel Fellowship from the World Health Organization for the period October 1 to December 15, 1962, and allowed her to remain on salary status during this period.
4. Approved of Carlton P. Maddox, Attorney for the Board, taking appropriate legal procedures in the case of the Arlington Medical Center.
5. Approved 18 applicants for medical scholarships.

June 24—Jacksonville

1. Approved certain rules, regulations and standards of the State Board of Health to be filed in the Office of the Secretary of State in line with new Administrative Procedures Act passed in the last session of the Legislature.
2. Approved the establishment of two additional divisions in the Bureau of Sanitary Engineering.
3. Approved an applicant for Osteopathic Scholarship.
4. Approved nine applicants for Dental Scholarships.
5. Approved the rules of the State Board of Beauty Culture as revised.
6. Approved the appointment of Dr. Peek as Advisory Director to the Board of Directors of the Florida Tuberculosis and Health Association.
7. Discussed with Mr. Maddox the Ft. Lauderdale situation with regard to the site of a garbage dump in that area. The Board authorized the Broward CHD to represent the State Board of Health in this matter and stated that Paul Hughes, M.D., and Richard Almeida specifically are agents of the State Board of Health for this problem.

6 ANNUAL REPORT, 1962

August 11—Jacksonville

1. The Board of Health and the Florida Merit System Council held a joint meeting and discussed the problems of concern with regard to the Merit System and the State Board of Health.

August 11—Jacksonville

1. Approved certain rules, regulations and standards of the State Board of Health for filing in the Secretary of State's Office under the Administrative Procedures Act.
2. Approved the Budget for the biennium 1963-65 for the State Board of Health and County Health Units.
3. Approved the legislative program of the State Board of Health.
4. Approved a State Natural Disaster Plan.
5. Approved of a plan whereby deduction of 10 per cent of matching funds be made from CHD budgets that have a surplus.
6. Approved the designation of C. M. Waters, M.D., as Acting Director, Division of Epidemiology.
7. Designated W. G. Winkler, D.V.M., as Acting Director, Division of Veterinary Public Health.
8. Discussed the licensure of Lakeside Hospital, DeFuniak Springs, and agreed to approve a provisional license providing certain criteria could be met by those owning the hospital.
9. Approved in principle an agreement between the State Hotel and Restaurant Commission and the State Board of Health.
10. Appointed William L. Wright, M.D., as Acting State Health Officer during Dr. Hardy's absence from the continental limits of the United States.

October 18—Miami Beach

1. Discussed a proposed meeting with the Air Pollution Control Commission, citizens group and the Board of Health to be held in either Lakeland or Tampa; the purpose of which would be to hear the problems of all concerned regarding air pollution in the area.
2. Approved the amount of \$25,000 to be used for a study of mental health in Florida to be conducted by arrangements through the Governor's Office.
3. Approved revisions to the recommendations of the Ad Hoc Polio Advisory Committee.
4. Discussed and directed that certain procedures in the Personnel Office be investigated by A. P. Ashby, Internal Auditor, and a report given to the Board on this investigation.

GENERAL ADMINISTRATION 7

5. Welcomed Hans Tanzler back to his position as attorney after a year's leave of absence for military duty.
6. Appointed Walter Weiss' replacement, Don Evans, as a member of Advisory Committee for Hospital Service for the Indigent.
7. Approved a resolution to the Surgeon General seeking return of Wilson T. Sowder, M.D., to his position of State Health Officer by January 3, 1963.
8. Authorized a year's leave of absence for James O. Bond, M.D., director of the Bureau of Preventable Diseases, beginning some time in December 1962, in order that he be the director of the Encephalitis Project in the Tampa Bay Laboratory; and at the end of the year this leave would be reviewed.
9. Approved an additional request of \$75,000 in state funds in the legislative budget for the next biennium for the purpose of constructing a virus laboratory in the proposed new Tampa Laboratory building.
10. Authorized the securing of a clear title to land opposite the Tampa Tuberculosis Hospital for construction of the Tampa Laboratory building.
11. Approved the amount of \$20,000 be included in the budget for the next biennium for a building in Vero Beach.

COORDINATION OF RESEARCH

JAMES O. BOND, M.D.

Acting Coordinator of Research

The director of the Bureau of Preventable Diseases continued to serve as Acting Coordinator of Research and Training in 1962. His personal interest led to special emphasis on research in the communicable diseases.

Early in the year there was an evaluation of a trivalent oral polio vaccine. This was a cooperative project conducted by the Hillsborough County Health Department (CHD), the Hillsborough County Medical Association and the State Board of Health (SBH). The purpose of this project was to evaluate the effectiveness of a trivalent oral polio vaccine with the hope that it would meet the standards for licensure and be made available for general use. A total of 190,000 persons were fed one or more doses of vaccine in a period from February to May. This was approximately 74 per cent of the county population under 40 years of age. The best community responses were obtained in the low socio-

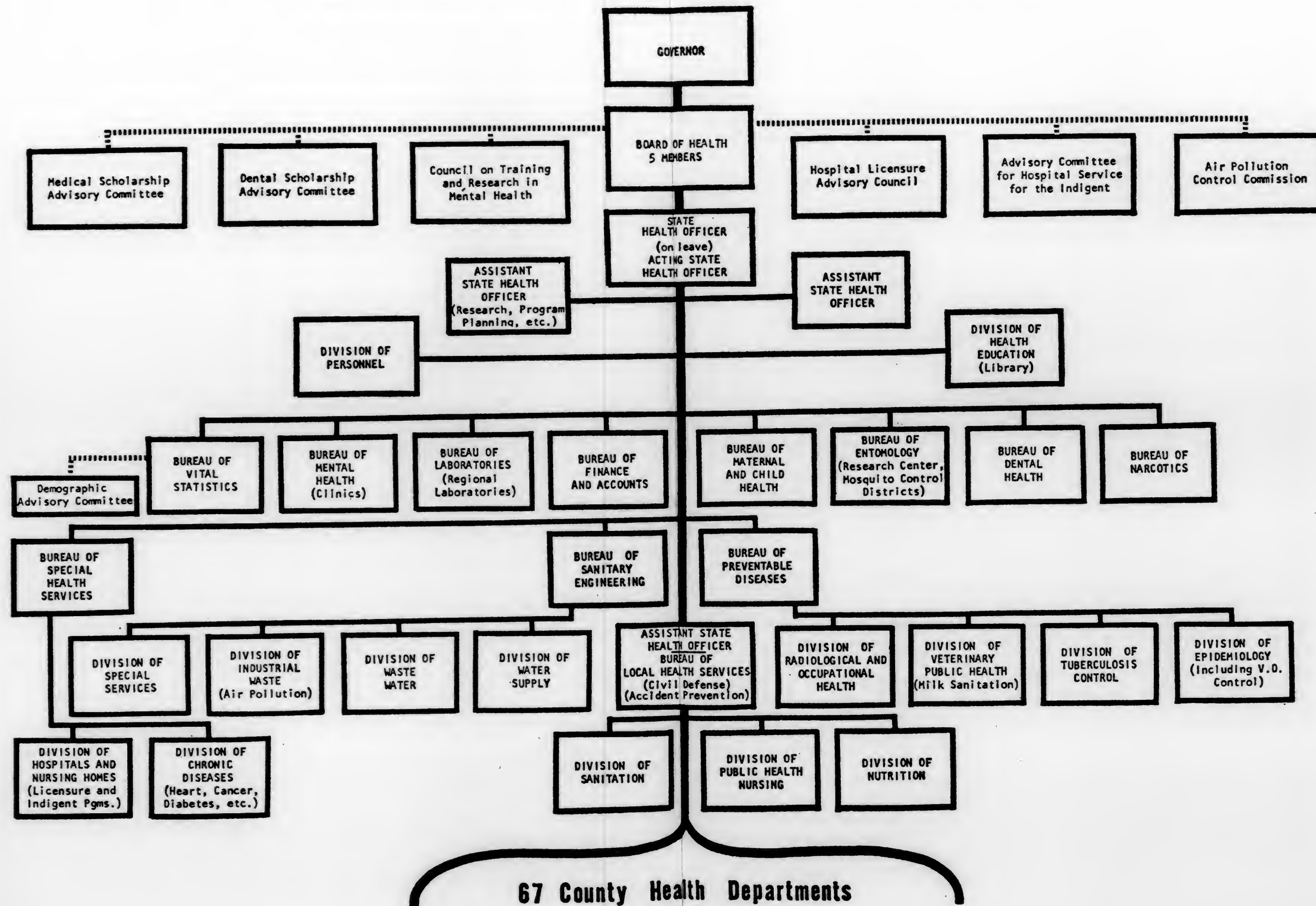
economic groups. The reasons for this were the subject of careful investigations by a team of social scientists. Serological responses to the vaccine were measured on a group of 1500 children and it was found that after feeding of two doses of the trivalent vaccine there was greater than 90 per cent conversion against each of the three types. The effect of the vaccine on the enterovirus prevalence in the community was measured by taking weekly sewage specimens in selected areas in the county and monthly collections of rectal swabs from healthy preschool nursery children. Clinical surveillance for paralytic disease and non-paralytic infections of the central nervous system was established in October 1961 and continued at a high level of intensity throughout 1962. No cases of paralytic polio were detected during or after the feeding program. The usual incidence of aseptic meningitis and other viral infections of central nervous system were observed during this period.

An outgrowth of this Hillsborough County program was the establishment on an experimental basis of a continuing plan for the immunization of all newborn infants brought into the community after the mass vaccination program. A pilot study was initiated in this county and later in Orange and Palm Beach Counties to evaluate procedures for attaining effective ongoing immunization programs. This study, which bears the title "An Evaluation of the Use of Birth Certificates as a Means for Achieving Mass Saturation of Immunization of One-Year-Old Infants in the Community," was supported by a one-year contract with the Communicable Disease Center, U. S. Public Health Service (USPHS). The basic plan in all three counties was to identify each infant of three months by the use of birth certificates filed with the CHD. The parents of these infants are contacted at this time to see if immunization had been initiated and again at the age of 12-18 months to see if they have been completed and boosters administered. In each of the three counties the parents of the child were first contacted by mail, then by telephone or by public health nurse visit, if no response was received by any of the preceding steps. In Orange and Hillsborough Counties the clerical and mailing procedures were facilitated by use of data processing equipment from the SBH. In Palm Beach County all administrative procedures were handled locally. The purpose of the project is to measure the cost of carrying out the program in the three different areas, and to determine the effectiveness in achieving immunization of all infants under age of one year. These studies will determine whether such a program should be extended on a statewide basis.

During the latter half of the year the Coordinator gave his time virtually exclusively to the encephalitis epidemic (See Bureau of Preventable Diseases, Epidemiology, elsewhere in this report).

Research training was an important responsibility of the Coordinator. He maintained temporary direction of the research training grant through which a limited number of promising physicians and scientists are provided opportunity for training in community-based

Organizational Chart of the Florida State Board of Health



research. This involves individual consultation and guidance. For broader participation the Coordinator arranged a three-day visit to USPHS research activities in Washington and Bethesda in which 12 staff members participated. Also there was held in Jacksonville a research conference planned and sponsored by Region IV, USPHS. This provided a ready opportunity for many staff members to become better informed as to the availability of research grant funds for a wide variety of differing studies.

Another important training and education activity carried out during the year was assistance in the preparation of an issue of *Health Notes* on the research programs carried on by the SBH and its various CHDs. This was a concise summary of the many projects being carried out by the SBH in the areas of research, demonstration and program development.

A part-time consultant on research in mental health was employed during the year (See Bureau of Mental Health elsewhere in this report). A number of project applications for mental health research were submitted to the Council on Training and Research in Mental Health and received preliminary review and evaluation by this special consultant and by the Coordinator.

The summer student training program continued to develop and is rapidly becoming one of the most effective mechanisms for recruiting young people into the field of public health. A total of 135 applications were received for 42 positions which were available during the summer of 1962. The accepted students saw widely diversified programs in various bureaus, divisions and CHDs. Some carried out creditable research projects of their own during the summer months and submitted formal reports.

During the year the initiation of a neurological and sensory disease service program by the USPHS added a new source of study funds. The University of Miami School of Medicine and the SBH were specifically invited to consider undertaking studies supported by these funds. Under pressure of a very early deadline for submitting proposals, a joint project was submitted for studies predominantly by the research division of the Dade County Department of Public Health and the University of Miami School of Medicine. Initially this calls for fact finding. Later program development will demand consideration. The Bureau of Special Health Services was involved in planning these studies and it is anticipated that it will have an even greater role in evaluating findings as to service needs.

The Community Studies Unit consists of a physician, a health program analyst and a secretary, financed by a research grant from the Kellogg Foundation. During 1962 principal emphasis was on the development and testing of a system for the evaluation of public health programs and on the compilation of a description of the school health program as seen by participants at the county level. A number of

studies were conducted regarding the efficacy of methods of presentation of public health programs, the factors influencing their acceptance or rejection, and child spacing. Consultation was offered to program directors, health officers and others in the revision of long range plans, in the development of data collection instruments and in the improvement of administrative procedures.

The need for a publication medium for reporting selected research and investigative activities in public health in Florida was recognized two years ago by the establishment of a SBH monograph series. This was intended primarily for the publication of studies which were either too long and comprehensive for publication as short reports in professional journals or were of a multi-disciplinary nature so that the publication in a single journal would not adequately reach the public health audience which would be interested in the findings. The first three such monographs have been published and have received commendable response but also indicated a need for establishment of overall policies and an editorial committee. Such a committee was appointed in 1962 by the Coordinator and was formally designated by the State Health Officer as an editorial board for the monograph series. The fourth monograph was accepted for publication during the year and plans were formally approved for the fifth.

SCHOLARSHIPS FOR PROFESSIONAL EDUCATION

The scholarship programs created by the 1955 Legislature for the study of medicine, dentistry and the several disciplines concerned with mental health, were continued with only one significant change. Stipends for residencies in psychiatry were terminated as required by the Legislature of 1961.

Scholarships for the study of medicine were awarded upon the recommendation of a seven-man advisory committee authorized by statute. The seven members were: George T. Harrell, M.D., Dean of the School of Medicine, University of Florida; John C. Finerty, Ph.D., Assistant Dean of the School of Medicine, University of Miami; Richard C. Clay, M.D., Miami; James T. Cook, Jr., M.D., Marianna; David W. Goddard, M.D., Daytona Beach; Homer L. Pearson, Jr., M.D., Miami; and Melvin M. Simmons, M.D., Chairman, Sarasota.

As authorized by the Legislature in 1959, one scholarship was awarded for the study of osteopathic medicine. The recipient was recommended by the State Board of Osteopathic Medical Examiners.

Scholarships for the study of dentistry were awarded by the Board upon the recommendations of the State Board of Dental Examiners.

Scholarships in the several disciplines of mental health were

awarded by the Board upon the recommendations of the Florida Council on Training and Research in Mental Health.

Through the Federal Social Security Act of 1935, the State Board of Health receives federal funds which are used to provide stipends to its employees and those in affiliated CHDs for specialized professional training. These stipends are awarded to career employees who evidence potential for growth and service in specialized areas of public health.

Persons receiving scholarships in 1962 were:

MEDICAL

Scholarships Awarded in 1962:

Richard Julian Bagby.....Miami	Laurie Miles Pardee.....Irvine
Leonard Channing Bass.....Live Oak	Howard Todd Willson.....Orlando
Joseph William Haddock.....Hilliard	Lloyd Dale Gauvin*.....Walton Beach
Donald Gammon Hall.....Blountstown	Richard Thomas
Gordon David	Roby, Jr.....Jacksonville
Onstad.....Miami Springs	Richard Allison Pollock.....Jacksonville

Continuing Scholarships Awarded Prior to 1962:

Awarded 1959:

Gordon Thames Couch
Francis Thomas Greene
Everett Norwood
McCormick
Wilbur Williams, Jr.

Awarded 1960:

Sylvester Barrington
Mirion Perry Bowers
Rodney Lee Brimhall
John Augustine Moore
Cupid R. Poe
Frederick Oliver Smith
Paul Vincent Sullivan
Tommie Lynn Thomas*
Robert Wheelchel Miles

Awarded 1961:

Thomas John Calhoun
George Duncan Finlay
Buford Gibson, Jr.
Betty Lou Bottoms
Jack Denby Bergstresser*
Oliver Hunt Harper
Betty Jo Johnson
James Cranford Phillips
Thomas Joseph Philpot
Joseph Thomas Rabban
David Oliver Westmark
Prince Benjamin
Oliver, Jr.
Hubert Warren Wingate
Ronald Loyde Haney
Braxton William Price

*Studying osteopathic medicine

DENTAL

Scholarships Awarded in 1962:

George Wallace Boring, Jr.....Arcadia	Henry Cephas Nichols.....Laurel Hill
Robert Renne	Alvan Carlton Smith.....Orlando
Burch.....West Palm Beach	Gordan Dennis Wiebe.....Tallahassee
James V. Ferdinand.....Miami	John Paroy
Ronald Emil Molinari.....Lake Worth	Youngman.....St. Petersburg
William Walker Motley, Jr.....Miami	Emory Turner Cain.....Pensacola

Continuing Scholarships Awarded Prior to 1962:

Awarded 1959:	Awarded 1960:	Awarded 1961:
George W. Alexander	Teddy Wallace Brown	Clement W. Barfield
Robert A. Brown	Edward Martin Clayton	George B. Dorris
Gene Watkins Eng	Harold Glenwood Gregg	Guy Ronald Estes
Robert G. Fountain	Emmett Alfred Kirksey	John T. Griffin, Jr.
Paul Vonbose Ladd	Lorenza Laws	Charles A. Harrell
Daniel Gordon Noland	Charles H. Ritter	Arthur R. Higgs
Thomas Melvin Scott	Earl Thomas Sherman	Clarence L. McNair
	Allen R. Treadwell	Edward L. Peters
		Ivan Beryl Roberts
		David M. Strimer
		William R. Warrender

MENTAL HEALTH

CLINICAL PSYCHOLOGY

Charles E. Buchanan.....Gainesville	Patsy Ann Livingston.....Jacksonville
Donald B. Clark.....Coral Gables	Nathan W. Perry, Jr.....Tallahassee
Benjamin F. Gillis.....Tallahassee	Richard Toister.....Coral Gables
Mack R. Hicks.....Gainesville	Eve Lyn Weeks.....Coral Gables
Stephen G. Irving.....Gainesville	John F. White.....Tallahassee

PSYCHIATRIC NURSING

Betty Land.....Branford	Sally Reynolds.....Clearwater
Gretchen LaGodna.....Ocala	Cynthia Strazis.....Orlando

PSYCHIATRIC SOCIAL WORK

First Year	Second Year
Dorothy C. Baker.....Dover	Aza Lee Baxter.....Tallahassee
George A. Brown.....Homestead	Asa O. Flake.....Tallahassee
Helen C. Ervin.....Dania	John E. Killiany.....Miami
Cleo G. Griffin.....St. Petersburg	Mina Jo Powell.....Williston
Phyllis R. Keith.....Opa Locka	
Lilli Ann Kresge.....Ormond Beach	
William H. Mathis.....Indian Lake Estates	
Imogene C. Peel.....Lake City	
Jo Ann Suco.....Tampa	
Allie Mae Truxal.....Chattahoochee	
Herbert W. Uppitt.....Miami	
Ruth E. W. Wilson.....Pensacola	

PUBLIC HEALTH PERSONNEL

E. R. Broussard.....Health Officer III.....Escambia	
E. Chariton Prather.....Health Officer II.....State Board of Health	
Willa Dean Lowery.....Health Officer III.....Franklin-Gulf	
Marilyn Ferwerda.....Public Health Nurse II.....Broward	
Genevieve Larsen.....Public Health Nurse II.....Dade	
Dorothy Cantall.....Public Health Nurse II.....Broward	
Irma Taylor.....Public Health Nurse II.....Hillsborough	
H. Grady Callison.....Sanitary Engineer V.....State Board of Health	

Frank L. Cross.....Sanitary Engineer II.....State Board of Health	
Donald W. Rogers.....Sanitary Engineer I.....Hillsborough	
A. L. Johnson.....Resident Analyst.....Dade	
Leon Stanley.....Psychiatric Social Worker III.....Duval	
Homer Thompson.....Administrative Assistant.....Broward	
Robert A. Graves.....Bioanalyst IV.....Tallahassee Regional Laboratory	

DIVISION OF PERSONNEL

MILES T. DEAN, M.A.
Director

Under the general direction of the State Health Officer, this division is responsible for the administration of the personnel program of the State Board of Health. This includes advising administrative officers concerning personnel practices and development; putting into effect procedures for carrying out approved personnel policies; participating in the preparation and administration of the approved Classification and Compensation Plan; administering the leave regulations; maintaining adequate personnel records on all persons employed in the agency; acting as liaison official with the Florida Merit System involving requests for certificates and reporting on the selection of eligibles, promotions, salary advancements, salary adjustments, demotions, transfers, dismissals, lay-offs and resignations; providing and administering a service rating system; and the preparing of necessary reports both state and federal. Payroll operation, also a responsibility of this division, includes the administration of leave accounting, the employee insurance program, retirement and Social Security, as well as the preparation of the administrative payroll and distribution of warrants. Preparation of the salary portion of the Legislative Requesting and the Operational Budgets is also a responsibility of the Division of Personnel.

During 1962 the number of new employments increased significantly from 624 employments in 1961 to 821 in 1962. Employment procedure was complicated additionally with the fingerprinting of all new employees. All employees were fingerprinted in accordance with an order from the Governor.

Considerable time was spent during the year in debate with the Merit System concerning proposed rule changes. Certain changes were made, most of which were of a procedure nature. These have been somewhat helpful. A proposal was made after consultative study to establish a tripartite approach to SBH personnel operation as a strengthening of Merit System action.

An increase in recruitment activities was begun. Training work-

shops were completed throughout the state on personnel practices and procedures. Distribution was made of office supervisors' training program material on an experimental basis.

Turnover continues to be a problem. There were 526 total terminations during the year. Postgraduate training was completed by 13 persons and 14 were placed on postgraduate training status.

TABLE 1
NUMBER OF EMPLOYEES IN THE STATE BOARD
OF HEALTH AND COUNTY HEALTH UNITS
AS OF DECEMBER 31, 1953 - 1962

Year (As of Dec. 31)	State Office	County Health Departments	Total Employees
1962	692	1821	2513
1961	626	1593	2219
1960	604	1534	2138
1959	586	1396	1982
1958	558	1321	1879
1957	528	1234	1762
1956	481	1127	1608
1955	442	1057	1499
1954	421	980	1401
1953	439	928	1367

TABLE 2
DISTRIBUTION OF PERSONNEL—STATE BOARD OF HEALTH
(OTHER THAN COUNTY HEALTH UNITS)
DECEMBER 31, 1962

ADMINISTRATIVE UNIT	Totals	Physicians	Sanitarians	Sanitary Engineers	Public Health Nurses	Lab. Workers Prof. and Tech.	Clerical	All Others
Grand Total	692	28	14	31	28	151	204	236
Administration:								
SHO	31	7			3		12	9
Personnel	13						9	4
Data Processing	13						11	2
Encephalitis (Tampa Bay Regional)	4					2		2
Total	61	7			3		32	17
Dental Health	11						1	10
Entomology	78		2	1		36	10	29
Finance and Accounts:								
Fiscal	12						6	6
Purchasing and Property	40						7	33
Total	52						13	39
Health Education:	13						5	8
Laboratories								
Central (Jacksonville)	68					45	6	17
Miami	22					16	2	4
Orlando	10					6	1	3
Pensacola	8					4	1	3
Tallahassee	7					3	2	2
Tampa	21					11	3	7
West Palm Beach	6					4	1	1
Total	142					91	16	39
Local Health Services:								
Bureau and Inservice Training	11	3	1		1		4	2
Nursing	14				11		3	
Sanitation	8		6				1	1
Nutrition	6						1	5
Civil Defense	2						1	1
Accident Prevention	2	1					1	
Total	43	4	7		12		11	9
Maternal and Child Health:	35	6			11	2	7	9
Mental Health:	19	1			1	4	6	7
Narcotics:	19					2	4	13
Preventable Diseases:								
Bureau	5	1					3	1
Radiological and Occupational Health	9	1				2	3	3
Tuberculosis Control	20	2					8	10
Epidemiology and Venereal Diseases Control	21	1				2	4	14
Veterinary Public Health	6		2				3	1
Total	61	5	2			4	21	29
Sanitary Engineering and Air Pollution Control:	74		2	30		11	21	10
Special Health Services:								
Bureau and Hospitals and Nursing Homes	20	2	1		1		7	9
Chronic Diseases	14	3				1	9	1
Total	34	5	1		1	1	16	10
Vital Statistics	50						41	9

TABLE 3
DISTRIBUTION OF PERSONNEL IN COUNTY
HEALTH UNITS—DECEMBER 31, 1962

COUNTY	TOTALS	Physicians	Sanitarians	Sanitary Engineers	Public Health Nurses	Lab. Workers (Prof. and Tech.)	Clerical	All Others
GRAND TOTAL	1821	106	308	12	644	35	380	336
1. Alachua	40	2	5		13	2	8	10
2. Baker	4		1		1		1	1
3. Bay	17	1	2		6	1	3	4
4. Bradford	6	1	1		2		1	1
5. Brevard	31	1	6		11		9	4
6. Broward	82	3	16	3	24		19	17
7. Calhoun	5		1		2		2	1
8. Charlotte	11	1	2		6		2	1
9. Citrus	6	1	1		2		2	1
10. Clay	8		1		4		1	1
11. Collier	11	1	1		3	1	3	2
12. Columbia	10	1	3		4		1	1
13. Dade	343	33	54	3	138	9	70	36
14. DeSoto	6		1		2		1	2
15. Dixie	3				1		1	1
16. Duval	48	2	9		12	2	10	13
17. Escambia	68	3	11		19	4	21	10
18. Flagler	4				2		1	1
19. Franklin	5		1		1		1	2
20. Gadsden	13	1	3		6		2	1
21. Gilchrist	2				1		1	
22. Glades	1						1	
23. Gulf	7		1		2		3	1
24. Hamilton	6		1		3		2	1
25. Hardee	7		1		3		1	1
26. Hendry	10		1		4		3	2
27. Hernando	2				1		1	
28. Highlands	10	1	2		4		2	1
29. Hillsborough	191	8	39	1	68	1	35	39
30. Holmes	5		1		2		1	1
31. Indian River	12	1	2		5		2	2
32. Jackson	14	1	2		5		2	4
33. Jefferson	9	1	1		2	1	1	3
34. Lafayette	4		1		1		1	1
35. Lake	18	1	3		7		3	4
36. Lee	14	1	3		5		2	3
37. Leon	41	4	5		12	1	9	10
38. Levy	6		1		2		1	2
39. Liberty	3				1		1	1
40. Madison	7	1	1		2		2	1
41. Manatee	30	1	5		11	2	7	4
42. Marion	17	1	3		7		2	4
43. Martin	5		2		2		1	
44. Monroe	19	1	3		6		5	4
45. Nassau	12	1	2		3		3	3
46. Okaloosa	15	1	2		5		1	6
47. Okeechobee	4		1		1		1	1
48. Orange	75	3	12	1	22	1	19	17
49. Osceola	5		1		2		2	
50. Palm Beach	88	5	14	1	29	2	16	21
51. Pasco	4		1		2		1	
52. Pinellas	166	9	29	2	67	4	33	22
53. Polk	90	2	14	1	33	2	17	21
54. Putnam	14	1	1		5		3	4
55. St. Johns	12	1	3		4		3	1
56. St. Lucie	18	1	5		3	1	3	5
57. Santa Rosa	10	1	1		4		1	3
58. Sarasota	44	1	8		14		13	8
59. Seminole	14	1	3		4		3	3
60. Sumter	4		1		1		1	1
61. Suwannee	9	1	1		3		2	2
62. Taylor	5		1		2		1	1
63. Union	3		1		1		1	
64. Volusia	54	4	8		19	1	7	15
65. Wakulla	2				1		1	
66. Walton	7	1	1		2			3
67. Washington	5		1		2		1	1

TABLE 4
TURNOVER BY CLASSIFICATION OF THE FLORIDA STATE
BOARD OF HEALTH—STATE AND COUNTY
CALENDAR YEAR 1962

	TERMINATIONS	TURNOVER RATE
Physicians	10	9.2
Sanitarians	35	11.0
Sanitary Engineers	6	14.0
Public Health Nurses	87	12.4
Laboratory Workers (Prof. and Tech.)	21	13.5
Clerical	156	27.9
All Others	116	21.1
Total	431	18.2

Not including persons employed on a temporary or for a specific duration. There were 95 such terminations.

TABLE 5
TERMINATION OF FLORIDA STATE BOARD OF HEALTH
EMPLOYEES—STATE AND COUNTY
BY SALARY RECEIVED AT TIME OF TERMINATION

CLASSIFICATION	MONTHLY SALARY										
	Total	Up to 199	200-299	300-399	400-499	500-599	600-699	700-799	800-899	900-999	1,000
Total	431	54	179	118	37	13	19	4	2	5	
Physicians	10			1			1	2	1	5	
Sanitarians	35			20	13	2					
Sanitary Engineers	6				3		3				
Public Health Nurses	87	2	26	52	7						
Lab. Workers (Prof. and Tech.)	21		5	9	6	1					
Clerical	156	17	119	18	2						
All Others	116	35	29	18	6	10	15	2	1		

DIVISION OF HEALTH EDUCATION

ELIZABETH REED, R.N., B.S.
Director

This division can report numerous activities during 1962 in line with its assigned duties. As a service unit to bureaus and divisions and county health departments (CHD), it provides the materials for informing a wide diversity of persons both professional and lay about the preventive aspects of health maintenance as well as current public health problems in Florida. It cooperates with all voluntary and official agencies, including schools, that are interested in any aspect of health. It serves as a resource to the general public. The contributions of health education and the social sciences are employed to understand and motivate individuals and communities to take responsibility for their own health through a variety of projects.

In 1962, 1052 books were added to the State Board of Health (SBH) *Medical Library*. Most of these were bound volumes of journals. The collection now numbers 18,465. Circulation statistics: books on regular loan, 1937; books on indefinite loan, 394; periodicals, 13,601; pamphlets, 66. Photocopies made from the library's bound journals totaled 1694; 86 photocopies were ordered from the National Library of Medicine; and 19 interlibrary loans were sent to other libraries. Reference questions in the number of 2420 were answered and 38 bibliographies were prepared.

SBH personnel (2594) were again at the top of the list of borrowers. Ranking second were CHD personnel with 47 coming in person, and 1453 items mailed out on request. Two hundred seventy-four students from local colleges, nursing schools and high schools came for service. Eighty-two non-medical persons also requested assistance.

The library continued to serve in the capacity of an auxiliary agency to the Jacksonville Hospitals' Educational Program (JHEP) libraries. Interns and residents no longer have to come to the library in person. If the item is not available in one of the JHEP libraries, then their librarian requests it from this facility. However, 201 doctors arranged their own loans directly this past year.

A list of duplicate journals was offered to other libraries through the Medical Library Association Exchange. A total of 162 requests were received. To date, 1442 journals have been sent to 139 different libraries; 19 of these are in foreign countries.

Exhibits, posters, reproductions, illustrations, slides, signs, field trips, etc., with over 500 recorded projects kept the exhibits section

busy throughout the year. Florida was given three honorable mentions for scientific exhibits out of a total of eight awarded at the 1962 APHA meeting in Miami. One of these was designed and carried to completion by the exhibits consultant.

Pamphlets distributed last year reached a quarter of a million in spite of limitations imposed on quantities distributed to organizations and schools. Leading in popularity were those on communicable diseases, nutrition and maternal and child health. There is an increasing demand for pamphlets giving information on health careers in detail. One interesting trend is the increasing number of employees who browse in the pamphlet room. One lamented trend is the steady reduction of well prepared pamphlets offered free of charge by commercial companies.

Florida Health Notes monthly mailing list grew to 17,000 by the end of the year. Extra copies are kept on hand to answer numerous requests that continue to come months and even years after publication. This bulletin is designed for a lay audience. Subjects covered during the year were: intestinal parasites, community nursing service, civil defense, eyesight, toxic pesticides, school health, encephalitis, alcoholism, research in public health and a simplified annual report. Approximately 75,000 extra copies of the issue on encephalitis were ordered following the epidemic in Pinellas County. . . . Other writing responsibilities included assistance with the editing of SBH Monograph No. 3 and the Annual Report. A public service spot campaign was inaugurated on Florida radio stations, with a packet of 42 spots on various subjects, of which 15 were deleted during the year with an equal number added. Plans are being made to serve TV stations in the same manner. A "Guide to Eating and Lodging Places" was prepared for traveling SBH personnel. The "Florida Health Intelligencer," a compilation of news notes about persons in health work in Florida, appeared four times. There is a constant stream of pamphlets and bulletins being developed. . . . Responsibility for all photography except that concerned with publicity resulted in much activity in this area.

An effort was made to streamline the activities of the *Audio-Visual library* since requests continued to increase, though in many instances could not be met. The use of a tape recorder for booking and a new daily reminder system for posting, shipping and checking on returned films was employed. Aids totaling 39 were removed as obsolete or damaged and 96 were added. . . . Equipment placed in the library included: a motion picture projector, new type of overhead projector, tape recorder and an automatic slide projector. There is a constant increase (11 per cent in 1962) in the use of equipment by SBH personnel. A new catalog was printed and distributed. Motion pictures still lead the field with 92 per cent of all aids booked. Circulation showed a slight decrease principally because aids requested are often not available. The total booking orders processed were 4984 in 1962 as compared to 5047 in 1961.

Other activities

Staff consultation time was spent with directors of bureaus and divisions and their technical personnel and the three health educators employed by them, the five employed by CHDs, the one with the Community Cervical Cytology Project (see Division of Chronic Diseases elsewhere in this report), with individual mental health workers, as well as CHDs which do not have a health educator on their staff. . . . Talks to university classes, CHD staffs, civic, educational and professional organizations, consume many hours. Helping people plan meetings, seminars, workshops (and sometimes acting as leader or moderator), serving on interbureau committees, or as officers of voluntary health and professional organizations, attending innumerable meetings, keep the staff occupied.

Four regular orientation programs (and one for summer students) were held with 20 persons attending. These seem to grow more popular each year and include invited persons from the education field, PTAs, voluntary and official agencies, universities, as well as SBH and CHD. . . . There was cooperation with Glades and Hendry Counties in setting up a health education program (snake bite problems) for the Seminole Indians. . . . Personnel assisted with the annual Teachers Project (see Bureau of Maternal and Child Health elsewhere in this report). . . . The director was given a 10-week leave of absence to accept a World Health Organization travel fellowship in Latin America so as to better serve foreign visitors (six in 1962) for which this division has the major responsibility. . . . There was continued work in many ways with schools, faculty groups and PTAs.

This division is constantly torn between its time-honored functions as a service unit and its desire to embark on community projects that would demonstrate the desirability of more involvement of people within their own groups in improving their health. Two such projects were undertaken in 1962: Promotion of oral polio vaccine in Hillsborough County and chest X-rays in Hardee County. Both of these were aimed at low socioeconomic groups and the discovery and involvement of health opinion molders. Until such time as more personnel are assigned, there will regretfully have to be only limited assistance given to projects of this type.

Some major *problems* are the constant struggle to demonstrate to directors of CHDs the desirability of adding a health educator to their staff. . . . An adequate budget, sufficient space and a better floor plan for the Medical library are still unsolved. The need for a librarian's office remains acute. Although categorical funds have made possible the updating of books in certain subject areas, other sections are unbalanced and contain much obsolete material. . . . Plans for the future include reorganizing and simplifying methods of disposing of duplicate journals; compilation of a staff manual; inauguration of a continuous inventory and encouragement of use of available materials. Also, the librarian plans to work toward accreditation as a Certified Medical Li-

brarian. . . . Last minute requests and increased activities remained a source of concern to the exhibits section while the problem of storage space for the many valuable materials accumulated grows year by year. . . . Categorical funds which limit the subjects which can be purchased with certain monies make the Audio-Visual library unbalanced in its coverage. Some lacks are accidents, civil defense, arthritis and rheumatism, vision, etc.

Further discussion is needed concerning an additional health educator on the staff, more assistance to CHDs with a significant Spanish-speaking population, acceleration of health career recruitment, stimulation of the 30 community colleges to identify public health problems and locate teaching resources, and a year's study of one or more representative CHDs expenditures on health education.

As a contrast to the above, it should be noted that in the long range plan for the division first written in June of 1961, and revised in July 1962, tangible results were noted. Needed equipment for the Medical library and the Audio-Visual library had been purchased, radio spot announcements had been inaugurated and money for a high school student had been budgeted for assistance in the libraries. At the year's end in cooperation with the Bureau of Maternal and Child Health, a television educational program on health designed for fifth and sixth grade children in Duval County was becoming a reality.

GENERAL DATA PROCESSING UNIT

ARNOLD KANNWISCHER, B.S.
Procedures Director

This unit performs three major functions: system and procedure analysis, IBM data processing and inactive records storage.

SYSTEMS AND PROCEDURES: This function consists of the analysis of present methods and systems of office performance, with the objective to simplify, improve, mechanize, or in some cases, eliminate a system. The principal aim is to afford a saving to the agency or increase the efficiency of a particular operation, especially in the areas of records handling and storage, forms design, and mechanization of hand operated procedures.

IBM DATA PROCESSING: The varied and expanded health programs within the State Board of Health (SBH), as well as the rapid growth of Florida, have led to an equally large production and accumulation of paper work. This has required a continuing increase in the mechanization of many of the manual record keeping procedures. This unit now processes approximately 100 programs in the IBM section. These include one or more programs for almost every bureau or division of the SBH. With this expansion of activities it has become necessary

during the year to borrow IBM computer time from other state agencies as well as outside industry. Six computer programs have been written and are currently being processed on the IBM 1401 Computer at the Florida State Department of Public Welfare. More procedures are now being programmed for computer use during the coming year.

INACTIVE FILE RECORDS DEPARTMENT: Four years ago it was deemed necessary to establish this department. The rapid accumulation of records presented a serious and costly problem. Additional costly filing equipment was continually requested; costly prime floor space; and each of these active files needed clerical maintenance. Inventory of records is now in progress and those found to be inactive are placed in transfer file boxes and removed to the Inactive File Department. In addition much microfilming was done, further reducing the size of the records accumulated. The year end inventory of the Inactive Records Department showed that the four years of accumulated records now in storage, afforded this agency a savings of over 80 thousand dollars. This savings plus the savings involved in records micro-filmed and destroyed in the last three years will show a savings of over 100 thousand dollars.

SERVICES RENDERED

Personnel Division—A major conversion of records processing continued. All payroll calculations and tabulations as well as leave accounting and personnel statistics were programmed for IBM machine handling. . . . **Narcotics**—The work for this bureau consisted mainly of one large registration procedure: the registration of 10,444 practitioners of the healing arts which consists of the mailing and processing of applications for licensing and the subsequent tabulation of related statistics. . . . **Finance and Accounts**—The work processed for this bureau included reports on Workmen's Compensation, salary budget projections, tabulations on expenditures, travel and county receipts and property inventory. . . . **Mental Health**—The reports submitted by the community mental health clinics on discharged patients are processed on a monthly basis by this unit. From these reports, calendar year as well as fiscal year statistical data are prepared. Data on more than 9000 discharges were processed in 1962. . . . **Local Health Services**—Numerous requests for statistical information for specific counties and communities were tabulated during the year. A major undertaking of this unit was the study of the feasibility of automating the daily activities reporting of the various disciplines in the county health departments. . . . **Maternal and Child Health**—A monthly maternal death listing as well as an annual listing is prepared for this bureau. . . . **Dental Health, Health Education, Entomology**—There are numerous small studies and IBM machine tabulations performed for these bureaus. . . . **Sanitary Engineering**—The major undertaking for this bureau was the consolidation of their filming and records system. Micro-filming of the blueprints and engineering drawings continued through-

out the year. . . . **Vital Statistics**—The processing of all the vital records included in 1962 approximately 120,000 births, deaths, marriages, divorces and annulments. Information from these records were coded and transferred into punch card format, from which are derived the statistics compiled and published in the Annual Report, the Vital Statistics Report, Supplement No. 1, and the Monthly Vital Statistics Report. . . . **Preventable Diseases**—This bureau received during 1962 over 90,000 communicable disease reports. These were processed by this unit and the data developed were published in the following major reports: Morbidity Report, Supplement No. 2. . . . **Special Health Services and Indigent Hospitalization Program**—During the 1961-62 fiscal year, 34,039 approved applications for indigent hospitalization were processed. From this fiscal information many statistical tables were requested, such as age of patients, length of hospitalization, average cost per admission, etc. . . . Also tabulated were monthly listings of cancer deaths, rheumatic fever deaths, reportable diseases and the semi-annual poison control register.

BUREAU OF LOCAL HEALTH SERVICES

WILLIAM L. WRIGHT, M.D., M.P.H.
Director

HUBERT U. KING, M.D.
Assistant Director

This bureau has as its major responsibilities the supervision of the 67 county health departments (CHD) and the coordination of public health programs throughout the state.

The bureau is administered by a director and an assistant director with a small clerical staff. Within the bureau are the Divisions of Public Health Nursing, Sanitation and Nutrition. Each division has its own director and staff. Additionally, the bureau is responsible for clerical consultation services, the Accident Prevention Program and the Health Mobilization Program (civil defense medical and health services). For the greater part of the year the bureau had the services of an additional health officer, who was used as a field consultant throughout the state in working with directors of the CHDs.

Health programs and activities have continued to grow and expand in the CHDs with particular attention being given to new health services for the chronically ill and aged. Almost all the counties are presently participating to some extent in these new health services.

Recruitment of suitable, experienced and trained personnel continues to be a matter of concern in all the professional categories. A number of positions are vacant in the CHDs due to this lack of adequately trained and suitable professional applicants. The problem is most acute in the rural areas.

Adequate financing of CHDs continues to be a problem, especially with the smaller health units. Many departments have gradually depleted their financial reserve over the past several years and at the same time have either reached or are very near the maximum of the allowable millage for their operations.

On January 1, 1962, the Health Mobilization Program was transferred from the Bureau of Special Health Services to this bureau.

CLERICAL SECTION

In 1962 the duties and responsibilities of the clerical consultants were expanded to include more phases of the work being done by the clerical personnel in the CHDs. These consultants now assist the CHD staffs in all matters of personnel papers, finances, payrolls, bookkeeping, record keeping, filing, vital statistics, recording and the completion of medically indigent applications. Additionally, the clerical consultants spent considerable time and effort in the central office assisting in the preparation of budgets, making budget changes, recording

changes of personnel in the counties and compiling information and data which are of value and assistance to the CHDs.

Clerical consultations and/or instructions were given to 49 CHD staffs during the year. About two-thirds of these consultations were made by requests coming from the counties with the remainder resulting from observations made in the bureau office. Such consultation services will usually average three to four days each. Assistance was given to eight CHDs where new clerical personnel had been employed without previous public health experience. In these instances follow-up visits were routinely made after a short interval so that additional instruction could be given.

In cooperation with the Internal Auditor of the State Board of Health (SBH) a simple basic bookkeeping system was established in 65 counties and also for one Mental Health Guidance Center. The other two counties, Dade and Pinellas, because of the size and complexity of their financial requirements, continued to use their present more detailed bookkeeping systems. Indications are that the simplified bookkeeping system has been well accepted and is proving of value to the county health officers and staffs.

The clerical consultants devoted considerable time during the year to assisting the CHDs in setting up and completing the change-over to the new nursing record system. As of the end of 1962 there were 13 counties using the complete new nursing record system, with an additional 38 counties having made some start towards this change-over.

The clerical consultants compiled the monthly report of activities from similar reports submitted by the 67 counties. Much of the statistical information contained in the tables in this annual report come from these monthly reports of activities. Each activity report submitted by a CHD is checked for completeness and accuracy. Only two of the 67 counties, Sumter and Volusia, submitted reports for the entire year without a single error.

Continued assistance was given by the clerical consultants to both the state and local records committees.

HEALTH MOBILIZATION

Under executive order of the Governor, the SBH is responsible for the organization and provision of the following emergency services: medical care, public health, potable water supplies and mortuary services. This responsibility involves this agency with all of the medical, paramedical and public health personnel in the state. Also involved are many other groups not usually considered as being medical personnel. These responsibilities include the management of medical personnel, supplies and facilities and the actual provision of services during a disaster.

About the first of March the SBH received 98 kits with which to carry out a pilot study of a medical self-help program. These kits were distributed to the respective counties. The ultimate objective of this program is to train one person in each family so that they might take care of the sick or injured in case the services of a physician were not immediately available during a disaster. The initiation of this program involved a personal visit to each county by the health mobilization coordinator, the establishment of a county planning committee and the preparation for conducting the 16 hours of instruction. A total of 26 counties participated in this pilot demonstration which met with varying degrees of success.

During the late summer the 34 civil defense emergency hospitals, now prepositioned throughout the state, were inspected by the Federal General Services Administration. Most of these hospitals were in fairly good shape but almost all of them had some minor items which needed correction. Two additional emergency hospitals for training purposes are located in the state, one in Miami and the other in St. Petersburg. The latter has been set up in a building at the county-owned airport and is being used for training purposes. The one in Miami has not been fully utilized. These 36 hospitals and their medical stockpiles have a value of \$833,000. The Cuban crisis late in the year provided a sudden spur to all the state's civil defense activities and steps were taken to organize a Task Force for Health Resources Management. Represented on the Task Force Committee are some 26 agencies and/or organizations.

At the close of the year emergency medical and health plans and activities presented a very spotty picture. Some counties had developed satisfactory local plans and were prepared to take effective steps to cope with emergencies while some others had only begun to work on their plans.

Health mobilization responsibilities include not only civil defense emergencies but natural disasters as well. In September such a natural disaster developed in the Sarasota area due to excessive rains and considerable flooding. A mobile laboratory from the SBH was dispatched immediately to assist the CHDs on the lower west coast with the problems of potable water supplies, both public and private.

ACCIDENT PREVENTION

The purpose of the accident prevention program is to give guidance to the CHDs in expanding their accident prevention activities in the fields of home, school and recreational safety. While an active interest in traffic and industrial safety is maintained, it is felt that these are adequately covered by other state agencies. Efforts were made during the year to interest CHD personnel in giving additional attention to accident prevention by incorporating this consideration into their other daily responsibilities.

A special detailed study of accidents to residents and employees of nursing homes in the state was completed early in the year. This study was carried out with the cooperation of the Florida Nursing Home Association. Not all of the nursing homes in the state were involved in this project. Those which were involved gained a good bit of useful information concerning their own accident hazards. This report was circulated to all nursing homes in hopes that others would survey their own facilities and remove such accident hazards.

In cooperation with the National Safety Council and the Sliding Glass Door Institute, the Dade County Department of Public Health undertook a survey of accidents involving sliding glass doors in homes. The study was later expanded to three other counties in the state and is presently continuing. A total of 141 accidents with 21 injuries were investigated. It is expected that this study will result in recommendations concerning the manufacture, installation and use of these glass doors.

Florida's 20 poison control centers were inspected and inventoried during the year and recommendations were made for improvements where these were indicated. These inspections resulted in a renewed interest in poison prevention and the SBH received inquiries from a number of communities desiring to establish such centers. A total of 3880 poisonings were reported to the SBH during the year. Since the coverage of the state by poison control centers is not complete, the number of poisonings being reported is estimated to be not more than 50 per cent of the total which actually occurs. The public health nurses made 3147 follow-up visits on reported poisonings. It is during such visits that the nurses have the opportunity to give parents and family members information concerning the prevention of poisonings. Tabulation of the reports indicates that 60 per cent of the total poisonings occur in children under five years of age with the highest frequency being in the two- and three-year-old children. Substances most frequently reported include: aspirin, other internal medications, cleaning and polishing agents, insecticides and kerosene.

The SBH, in cooperation with the University of Florida Medical School and the Florida Medical Association, set up a reporting system for all snake bites occurring within the state. At the close of the year information had been collected on 280 snake bites which had resulted in three fatalities. About one-half of the bites occur in children 15 years of age or younger with two-thirds of the total occurring in people 20 years of age or younger. About half of the bites occurred on the arms and the other half on the legs.

During 1962 the personnel of the Palm Beach CHD undertook to make a survey of accidents occurring to members of their immediate families. Some 200 individuals of 75 families were involved in the study with 70 accidents of various kinds and degrees of severity being reported. Slightly over half of these accidents took place in or about the home with the kitchen and yard areas being the most frequent sites of occurrences.

COUNTY HEALTH DEPARTMENTS

The organizational pattern for county health units remained essentially the same during 1962. The Jefferson-Wakulla Unit and Franklin-Gulf Unit were officially made permanent bi-county units. With the appointment of a health officer for the former, the Leon CHD was relieved of responsibility for supervision of this unit. Thus there were 25 single county departments; nine bi-county units; and eight tri-county units—for a total of 42 county health units.

Some 77 physicians were employed full-time in county health units in 1962. During the year three local directors resigned, three transferred to other positions, and there were five new appointments. At the end of the year, there were four vacancies for local directors in the state—with definite prospects for filling two of these positions. Four public health residents received approved training during the year. And one health officer received postgraduate training leading to the Masters of Public Health degree.

Staffing and Financing: (See Bureau of Finance and Accounts and Division of Personnel elsewhere in this report.) As of December 31, 1962, there were 1821 employees on the staffs of CHDs. CHD budgets totaled \$9,968,436 for the calendar year 1962. Of this total \$6,752,114 came from local contributions; \$2,515,362 from state and federal funds; and \$700,960 came from the budgeted reserve.

Health Center Construction: New headquarters centers were completed at Naples in Collier County and Ft. Myers in Lee County; new auxiliary centers in Ft. Walton Beach in Okaloosa County, Havana in Gadsden County, Frostproof and Auburndale in Polk County and Ft. Lauderdale in Broward County. Other quarters were secured in the City of Okeechobee in Okeechobee County, and quarters were remodeled at Reddick (Marion County). Construction began on new headquarters centers in Ocala in Marion County, and Ft. Pierce in St. Lucie County.

HIGHLIGHTS OF LOCAL PROGRAMS

The statistical report of CHD activities (Table 7) indicates the number and types of various services rendered by local health departments. The following is a summary in abstract form of some of the more exceptional or outstanding developments in local programs:

Baker—The combination nursing program continued during the year demonstrates the value of a program of this type in a rural area. Added emphasis was placed on rabies and hookworm control as well as school sanitation and accident prevention.

Brevard—Under the new medical director a comprehensive study

and evaluation of the nursing and environmental sanitation programs were undertaken. These studies indicate that the continuing population growth resulting from National Aeronautics and Space Administration and other space activities require substantial expansion of services through the addition of more adequate staff and facilities. Steps are being taken to meet these needs. Plans were formulated for the renewal of a mental health program in the county. Specific attention was given to psychiatric emergencies with the result that commitment of such patients to jails has been eliminated. In cooperation with the U. S. Public Health Service (USPHS) and Winthrop Laboratories Research Department, the CHD began a Measles Vaccine Field Trial. Some 897 children under seven years of age are participating in the program. Follow-up on these children will continue during the next few years. A mass tuberculin testing X-ray program was successfully completed in September. The CHD cooperated in establishment of a program for hospitalization of medically indigent maternity patients; began a combination nursing service in the county on a limited basis; cooperated with the SBH in the atypical acid-fast study, and completed plans for a pollution survey of the Indian River.

Broward—Reported a serious outbreak of some 200 cases of infectious syphilis which was brought under control through the teamwork of the CHD staff, VD investigators and private physicians. Conducted studies in cooperation with local psychiatrists in an effort to expand outpatient and home care services for psychiatric patients. Made fluoride drops available to children under care of the dental clinic to determine the effectiveness of this procedure in reducing the decayed-missing-filled rate. Assisted the county commissioners in a program in which the county plans to take over operation of water and sewage utilities in unincorporated areas. Conducted an extensive survey of garbage disposal as a result of which the county commission laid plans to build three incinerators and assume responsibility for garbage disposal. Established 20 air pollution stations in a study to provide baseline information which will be of great value as the county becomes more industrialized. Published an extensive 25-year history on public health in Broward County.

Charlotte—Increased school health activities. Expanded psychological testing in the schools. The Gray Lady program was also expanded to include all but one school. Volunteers were secured to serve as health room attendants and were given instruction in general duties, first aid, etc. In cooperation with school officials prepared and distributed a school health manual. Regular meetings were held with PTA officials. Formation of PTA Health Committees was stimulated. Individual conferences with teachers, especially those newly employed, were held to discuss school health problems. Discussed services of health department with lunchroom managers. Gave numerous lectures in the schools on health subjects. Established a home nursing service in the county. Conducted the first glaucoma screening program in the county with over 800 individuals tested. Seventy-three suspects were

detected. Pollution sewage of tidal water was a major program during the year.

Collier—Moved headquarters from Everglades City to Naples as result of the referendum moving the county seat. In November moved into a new modern health center in east Naples adjacent to other county government buildings.

Dade—The Cuban Refugee Medical Dispensary was moved to larger quarters. With expanded facilities and increased staff, as many as 16,000 patients were served during a single month. At the end of the year the staff assisted in processing and rendering care to the Bay of Pigs Cuban prisoners. In another new development a Division of Adult Health and Aging was established, and will have as its goal the coordination and expansion of activities in the control of chronic illness and problems relating to aging. The nursing home and hospital inspection programs are also included in this division. Through increased state and federal support intensified casefinding and treatment activities in both tuberculosis and VD control. Began a new air pollution control program under the Engineering Division. A countywide survey was initiated, local legislation was drafted and monitoring techniques established. The Divisions of Research and Epidemiology were combined and jointly engaged in 20 research projects during the year. Established a psychiatric unit within the CHD to assist the Juvenile Court. Conducted a program for the prevention of recurrent congestive heart failure. Also began planning for a project to tape record heart sounds of children in public schools. One of the highlights of the year was the 90th annual meeting of the American Public Health Association at Miami Beach in October. The Florida Public Health Association met concurrently and awarded T. E. Cato, M.D., Director of the Dade County Department of Public Health a Meritorious Service Award.

Escambia—One hundred and sixty-three children participated in a study of the effectiveness of inactivated measles virus vaccine supplied by Pfizer Laboratories and conducted by the CHD. During the summer, a student training program in environmental sanitation was inaugurated.

Gadsden—Highlight was construction of a new auxiliary health center at Havana.

Glades-Hendry — Began a unique program — that of teaching first aid to the Seminole Indians. This in cooperation with the Ross Allen Institute, Ocala, and local Red Cross. Included were courses on snake bite, firearms safety and general first aid.

Hardee—Continued expansion of staff and program. Physical examinations were given to all students taking physical education, and to football and basketball players. With assistance of the Gray Ladies conducted audio-visual tests in the schools. Completed a tuberculin skin testing program on all students in the first, second, third, ninth,

tenth and eleventh grades with careful follow-up of all positive reactors and their families. Helped expand the Gray Lady program to cover all elementary schools. Purchased a complete dental unit and made plans for a dental health program. Initiated a home nursing program in the county. Conducted a study utilizing community resources in a mobile X-ray program to demonstrate the importance of community resources in the success of mass surveys.

Hillsborough—Approximately 388,000 doses of Sabin Trivalent Oral Polio Vaccine (Lederle) were fed to citizens of Hillsborough County in a mass immunization program in the spring. No polio-like illnesses occurred after the vaccine was given. Sewage specimens and fecal specimens from nursery school children will be taken routinely for two years to determine the extent of natural virus which may remain in the county. A "vaccine acceptance" sociological sampling survey and an immunization level sampling survey were also conducted—with some 1200 children tested for antibody response. Intensified the general immunization program by using a new immunization reminder system. Conducted a sampling survey for streptococcal infections among school children using throat swabs. The SBH provided funds with which the CHD began a survey count of acute rheumatic fever and acute glomerulonephritis cases in the county. Continued the occupational health program sponsored by USPHS grant and begun in 1961. A project was begun to study air pollution in three areas of the county. Information on industries in the area was collected. A special study was done in an area adjacent to a large asphalt plant using a non-industrial area as the control area to correlate the incidence of respiratory symptoms with air pollution. In cooperation with the USPHS carried out a cancer demonstration project in which some 57 per cent of all female Aid to Dependent Children (ADC) recipients were examined for uterine cancer. The community nursing program was expanded during the year. Cooperated with the SBH and the USPHS in radiological sampling of food and drink. Conducted an intensive communitywide educational program on fluoridation of public water supplies.

Holmes—Devoted much time to the formulation of civil defense plans. Put a mosquito control program into operation at Bonifay. Completed plans for a sanitary landfill program to begin early in 1963. Developed an outstanding school health program in one of the schools which it is hoped will serve as a model for other schools in the county. This program will be under direction of the school health coordinator in cooperation with the CHD staff. Projected as a five-year study, correlation of student health and scholastic achievement will be one goal of the program.

Lake—Expanded the sanitary landfill program in the county and in cooperation with three townships purchased 140 acres of land and a new bulldozer for this program. It is felt that the development of a countywide garbage disposal program has contributed materially to

the elimination of rabies in dogs by removal of "feeding areas" formerly provided by open dumps. The CHD has concentrated efforts on the civil defense program and has done much to stimulate private construction of fallout shelters. Some 50-plus shelters have been built with the largest ones accommodating more than 100 people. Conducted a school survey on smoking habits of 500 high school students. Conclusions are that more education needs to be done with those under 15 years of age. Parents' smoking habits are closely correlated with those of their children—if neither parent smokes there is one chance in 11 that the child will smoke by the senior year; if one parent smokes the chances appear to be one in four; but if both parents smoke the chances increase to one in three. No definite correlation could be established as to cause and effect of smoking and poor grades. Every school in the county received at least one lecture on the harm of "Fiddling with the Filthy Fags."

Lee—Moved into new quarters in the Courthouse Annex. Expanded tuberculosis casefinding program with the addition of an X-ray machine. In cooperation with the Lee-Hendry County Medical Society administered Types I and II Sabin Polio Vaccine in the community. Conducted an extensive survey of the waters of the county so that with few exceptions all waters are now approved for shellfish and other controlled fishing.

Madison—Inaugurated a combination nursing service during the year. Conducted a small community screening survey for diabetes, anemia and hypertension.

Manatee—Began a community home nursing program in cooperation with the Manatee County Medical Society in March. Since that time the program has shown rapid growth and progress. Additional staff nurses and a director of nursing service have been added to the staff.

Marion—A team from USPHS assisted the staff in making tests on ADC recipients for uterine cancer. Of 467 patients tested, 69 had abnormal findings. The nursing staff spent much time on this project with a number of discussion meetings being held to prepare patients for the tests. A number of home visits were required to insure proper medical follow-up for those with abnormal tests. A dental clinic was begun with the appointment of a dental preceptor. Over 1000 indigent children have received dental inspections with 121 completed treatments. Late in the year services of a physical therapist for one day a week were secured. Much time was spent in laying plans for the home nursing program expected to begin in 1963. The town of Reddick provided new health clinic quarters and Dunnellon began remodeling a building for a clinic there. The sanitation staff was busy with subdivision inspections with installation of two new community water systems and extension of city lines to three new subdivisions. Belleview and Dunnellon expanded their water systems and began work on sew-

age treatment plants. The county commission appropriated funds to begin an arthropod control program. Additional equipment was obtained to expand and improve landfill operations. Under supervision of the CHD the county's first animal pound was constructed and began operation. The number of cases of rabies in wildlife increased and a study in cooperation with the USPHS and SBH was conducted. A number of "growth study committees" were organized to study the problems of community growth in suburban areas. Construction was begun on the new health department headquarters in Ocala.

Monroe—A large amount of time and attention was devoted to sewage disposal which constitutes a significant and unique problem in the Keys due to the geology of this area. The SBH is cooperating in conducting a survey in the Keys to determine the amount of pollution of contiguous waters. Much interest has been shown by citizens and community leaders so that progress should be made in this program in the near future. The Hansen's Disease (leprosy) register still shows some 17 known cases of this disease in the county. All are under treatment. The tuberculosis casefinding program has been stepped up by substituting tuberculin skin tests for routine chest X-rays.

Nassau—A community committee with representatives from the county medical society, local hospital trustees, welfare department, county commission and health department was organized to study the problem of providing adequate funds for hospitalization of the indigent and to establish criteria for "medical indigency." As a result patients are being more carefully screened and the limited funds available are being used to better advantage. Land was secured and plans made for an auxiliary health center at Yulee. A countywide X-ray program was conducted in August. A survey of local waters for oyster gathering was conducted.

Palm Beach—A new rehabilitation program was organized under a plan developed by Dr. Howard Rusk. This program has as its goal the rehabilitation of disabled persons in the county home and hospital, those in private nursing homes, and patients seen through the bedside nursing program. In addition to a well-trained physician, the staff consists of a physical therapist and an occupational therapist. A rehabilitation center has been established at the county hospital. The program is being used to train interns, nurses and other students. A countywide committee representing over 25 agencies interested in rehabilitation is being organized to coordinate services. The coordinated administration of health, welfare and indigent medical care services in this county continues to provide an opportunity for program development which would not be possible without this coordination. Examples are the rehabilitation program, improvement in mental health services and reorganization of the total indigent medical care program in the county. A psychiatric clinic for adults was organized in 1962. The entire mental health program is being reviewed and reorganized to meet changing needs for services. A medical plan for the county

home and hospital was submitted to the Board of County Commissioners projected to the year 1980. Based on this, a construction program and plans for a 500-bed facility have been prepared. The first phase of construction will begin in 1963. In cooperation with local physicians, a newborn immunization program was begun. Parents of newborn infants are contacted and follow-up is made to get these infants under medical care and immunized. The Migrant Project continued with expansion of medical care carried out through mobile clinics taken to the farms. The CHD in cooperation with the SBH has developed a new record system to improve the evaluation of services. Conducted a study of accidents among health department personnel. Participated in evaluation of the Pfizer Trivalent Oral Polio Vaccine among 100 previously unimmunized children with studies to determine antibody levels and rectal swabs for viral studies. Cooperated with a local hospital in organizing an outpatient department serving patients admitted under the Hospital Service for the Indigent program. Daily clinics are held and patients are followed for three months after discharge from the hospital. A public health nurse coordinates inpatient and outpatient services, including use of home nursing and ancillary services.

Pinellas—Experienced a serious outbreak of viral encephalitis during the Fall. An extensive mosquito control program was planned for the Spring of 1963 for the purpose of lessening the probability of another outbreak. In October began a Psychiatric Emergency Service to prevent jailing of mentally disturbed patients. Cooperated with the USPHS in establishing a study of accidents among the aged. Conducted a series of nine symposia to interpret the findings of the Gerontology Research Project. The symposia covered the health problems of the chronically ill and aged and utilized the services of state and national speakers—focusing on solutions to problems of the aged through community health programming. Began a study in July on the extra-hospital needs in a retirement area. Six public health nurse interviewers were trained and some 850 of an anticipated 2850 interviews were completed. Early findings indicate that greatest needs are in nutrition, dental care and preventive health services. A great deal of chronic illness has been discovered—most of which is being handled adequately by the family. A Health Careers Futurama was held in January for 3500 students, teachers, guidance counselors and parents. The largest water supply expansion program in the history of the county was completed in 1962. The sanitary sewerage program continued with much success—with some 75 per cent of the population being served by sanitary sewers.

Putnam—Assisted the county medical society and local chapter of the National Foundation in a Sabin Polio Vaccine feeding program. All three types were used. Public response was excellent for the first two feedings but lagged on the third one. A unique feature was use of voting polls as feeding stations. Plans for a new headquarters building are almost complete. Approval for a community home nursing pro-

gram was secured from the county commissioners and medical society—which program began in April. This program is showing satisfactory progress to date. Supervision of landfill operations was delegated to the health department as part of its arthropod control program. Additional equipment has been secured and by the end of the year nine landfills were in operation.

St. Lucie—Construction was begun on the new \$150,000 health center. Completion is expected early in 1963.

Santa Rosa—Initiated a dental health program with appointment of a dental preceptor. During 1962 some 744 school children received dental inspections and 649 patients received dental care. Programs on nutrition and dental care were conducted in the schools. Six classes in medical self-help were conducted. Numerous meetings were held to stimulate completion of a nursing home for the county. The staff gave lectures in the high schools on preparation for marriage. A tuberculin testing program was begun using the Sterneedle technique. Over 4700 tests were completed last school year. All positive tests were rechecked with the Mantoux test. A report of the two-year study will be published upon its completion. The CHD took over operation of the arthropod control program in the county.

Sarasota—Cooperated with the county medical society in conducting a Sabin Polio Program. Types I and II were given in 1962 with Type III scheduled for March 1963. Some 108,260 doses of Type I and II vaccine were given. The Tumor Clinic was moved into the hospital to coordinate activities with the maternity clinic. This has greatly facilitated clinic operation. The mental health program continued to grow and provided social, economic and environmental information to the courts, state hospitals, local doctors and CHD staff. As a specialized aspect of this program 129 alcoholic patients were referred to the staff. Forty-one of these patients were treated at the Florida Alcoholic Rehabilitation Center and 88 in the community. Visiting Nurse Association-Public Health Nursing Program continued its growth during 1962. A nurse was employed to coordinate hospital activities with those of the health department in this field. Better referrals and a closer working relationship with the hospital have resulted. The CHD served as a training center to give public health nurses training in home nursing care techniques. The CHD also continued to provide "observation" experience to nursing students from the Manatee Junior College and Sarasota Vocational (Practical Nurses) School. In the field of sanitation the following progress was noted: The city of Sarasota passed a local ordinance requiring Department of Agriculture inspection of all meat sold in the city. Local bay areas were surveyed and approved for commercial shellfishing. A countywide ordinance was passed requiring licensing and bonding of all county well-diggers and provides for control and conservation of underground water supplies. Conducted a "management institute" for restaurant managers and owners.

Seminole—Established a new well-child clinic in cooperation with local pediatricians. Conducted an extensive intestinal parasite screening of colored school children. Distributed 549 Dreyppacks for detection of diabetes during Diabetes Detection Week. Nine previously unknown cases of diabetes were discovered and confirmed by blood sugars. Sanford began construction of new sewage treatment plant. County entered into an arthropod control program in cooperation with the SBH. Three sanitary landfills are being operated giving the county a good garbage disposal program. Surveys and maps were begun looking toward an extensive drainage and larvaciding program for mosquito control in 1963-64. Considerable progress was made in control and expansion of water and sewage facilities. A franchise agreement between the county government and utility companies has been under study this year. As a result improvement in services provided by these companies has resulted.

Volusia—Conducted a comprehensive foodhandlers school with some 275 foodhandlers from schools, nursing homes, hospitals and restaurants attending. Carried out a water pollution survey with approval of shellfish gathering in certain areas. Participated in cancer detection program for ADC recipients. Of 592 patients examined, 24 had some type of pathology requiring follow-up which is now in progress. Conducted a survey among all retarded children in public schools to detect phenylketonuria. Trained six public health nurses from other counties in the home nursing care program. Supplied information about this program to a number of university students. Home nursing services increased significantly during the year. Two nurses were added to the staff.

Walton-Washington—Particular attention was given to the development of a definitive civil defense program—with assignment of duties and responsibilities to all staff members.

DIVISION OF PUBLIC HEALTH NURSING

RUTH METTINGER, R.N.
Director

The administrative structure of this division remains unchanged, consisting of a director, five generalized consultants, one nurse-midwife consultant and two clerical assistants. One of the consultants acts as assistant director and guides the nursing in-service education program. The nurse-midwife is responsible for the training and supervision of midwives.

The purpose of the division is to insure that a high quality of public health nursing service is offered by each county health department (CHD). In attempting to achieve this purpose, the consultants' duties are: to participate in planning conferences with bureau and division directors; to interpret to local personnel the policies of the State Board of Health and new trends in nursing programs; to offer consultation in specific and general technical aspects of public health nursing, including interpersonal relations; to participate in the planning and implementation of local, district and statewide in-service training programs, community health activities and workshops; and to promote continuing education and in-service training for nurses.

All aspects of the public health nursing program received attention during 1962, but certain activities received particular emphasis.

NURSING CARE OF THE SICK AT HOME

An increase in federal funds for the improvement of programs for the chronically ill and aged made possible an acceleration of the plan for extending to rural areas nursing care of the sick at home. At the beginning of 1962 there were 12 areas in which this service was combined with other public health nursing activities; as the year ended there were 29 areas with expanded services, an increase of almost 150 per cent. A major portion of the consultants' time was spent in interpreting this program to CHDs and in helping to organize citizens' advisory committees to help promote and implement the programs.

ORIENTATION AND TRAINING ACTIVITIES

As the expansion of the home nursing care program accelerated, there was a need for refresher courses in bedside nursing techniques for public health nurses, and for advanced and special courses in rehabilitation nursing. Thirty-two public health nurses from health units where the combined service was in operation or in the planning stage spent two weeks in Clay, Sarasota or Volusia County for orientation in nursing care of the sick at home.

Fifteen participated in a two-weeks' short course on home care of the sick and aged offered by the University of Florida. Thirty-one

Seminole—Established a new well-child clinic in cooperation with local pediatricians. Conducted an extensive intestinal parasite screening of colored school children. Distributed 549 Dreypacks for detection of diabetes during Diabetes Detection Week. Nine previously unknown cases of diabetes were discovered and confirmed by blood sugars. Sanford began construction of new sewage treatment plant. County entered into an arthropod control program in cooperation with the SBH. Three sanitary landfills are being operated giving the county a good garbage disposal program. Surveys and maps were begun looking toward an extensive drainage and larvaciding program for mosquito control in 1963-64. Considerable progress was made in control and expansion of water and sewage facilities. A franchise agreement between the county government and utility companies has been under study this year. As a result improvement in services provided by these companies has resulted.

Volusia—Conducted a comprehensive foodhandlers school with some 275 foodhandlers from schools, nursing homes, hospitals and restaurants attending. Carried out a water pollution survey with approval of shellfish gathering in certain areas. Participated in cancer detection program for ADC recipients. Of 592 patients examined, 24 had some type of pathology requiring follow-up which is now in progress. Conducted a survey among all retarded children in public schools to detect phenylketonuria. Trained six public health nurses from other counties in the home nursing care program. Supplied information about this program to a number of university students. Home nursing services increased significantly during the year. Two nurses were added to the staff.

Walton-Washington—Particular attention was given to the development of a definitive civil defense program—with assignment of duties and responsibilities to all staff members.

DIVISION OF PUBLIC HEALTH NURSING

RUTH METTINGER, R.N.
Director

The administrative structure of this division remains unchanged, consisting of a director, five generalized consultants, one nurse-midwife consultant and two clerical assistants. One of the consultants acts as assistant director and guides the nursing in-service education program. The nurse-midwife is responsible for the training and supervision of midwives.

The purpose of the division is to insure that a high quality of public health nursing service is offered by each county health department (CHD). In attempting to achieve this purpose, the consultants' duties are: to participate in planning conferences with bureau and division directors; to interpret to local personnel the policies of the State Board of Health and new trends in nursing programs; to offer consultation in specific and general technical aspects of public health nursing, including interpersonal relations; to participate in the planning and implementation of local, district and statewide in-service training programs, community health activities and workshops; and to promote continuing education and in-service training for nurses.

All aspects of the public health nursing program received attention during 1962, but certain activities received particular emphasis.

NURSING CARE OF THE SICK AT HOME

An increase in federal funds for the improvement of programs for the chronically ill and aged made possible an acceleration of the plan for extending to rural areas nursing care of the sick at home. At the beginning of 1962 there were 12 areas in which this service was combined with other public health nursing activities; as the year ended there were 29 areas with expanded services, an increase of almost 150 per cent. A major portion of the consultants' time was spent in interpreting this program to CHDs and in helping to organize citizens' advisory committees to help promote and implement the programs.

ORIENTATION AND TRAINING ACTIVITIES

As the expansion of the home nursing care program accelerated, there was a need for refresher courses in bedside nursing techniques for public health nurses, and for advanced and special courses in rehabilitation nursing. Thirty-two public health nurses from health units where the combined service was in operation or in the planning stage spent two weeks in Clay, Sarasota or Volusia County for orientation in nursing care of the sick at home.

Fifteen participated in a two-weeks' short course on home care of the sick and aged offered by the University of Florida. Thirty-one

public health nurses were sent to Rusk Institute, Sister Kenny Institute, New York Medical Center and/or the University of Miami for short courses in rehabilitation.

Six nurses went to the University of North Carolina for short courses in special fields, such as supervision, chronic diseases, etc.

A national conference on home care of the sick and aged was attended by 12 public health nurses from Florida, including one of the nurse consultants who presented a paper.

In-service study groups continue to meet regularly as in the past.

Junior colleges were encouraged to establish programs leading to the associate degree in nursing. Six such programs were in operation during 1962, and four more will be initiated next year.

REVISION OF NURSING RECORDS AND FILING SYSTEMS

In cooperation with the clerical consultants, the nursing consultants helped CHD personnel to install the recently approved central filing system and revise nursing records.

WORKSHOPS AND CONFERENCES

The division continued to conduct workshops and conferences on human relations and mental health in public health nursing, in cooperation with the Bureau of Mental Health.

A committee of nurses from CHDs and the Division of Public Health Nursing prepared a "Guide for Public Health Nurses Working With Families Who Have Emotional Problems," which was distributed and reviewed with public health nurses throughout the state.

TRAINING, LICENSING AND SUPERVISION OF MIDWIVES

The nurse-midwife consultant made 46 visits to counties to conduct or assist in the planning of educational programs for midwives. About 150 midwives attended. Two hundred and three midwives were licensed in 1962, a decrease of 14 from the preceding year. Midwives in rural areas are being eliminated where local physicians and hospitals are able to care for indigent prenatales.

OTHER ACTIVITIES

Aid was given to the Division of Hospitals and Nursing Homes in the grading of nursing homes, and consultation was offered to CHD nurses and sanitarians regarding local nursing home problems.

One of the consultants participated on a committee with members of the Florida League for Nursing and Florida Tuberculosis and Health Association in the organization and activities of a committee on nursing in tuberculosis and other respiratory diseases and helped plan future conferences on this subject.

In carrying out their assignments the consultants made a total of 262 visits to counties during the year, emphasizing the listed activities and continuing to give attention to all phases of public health nursing.

DIVISION OF SANITATION

A. W. MORRISON, JR., R.S.
Director

The activities of this division continue to focus on the broad objectives of development and improvement of local environmental health programs designed to effectively serve the needs of each community in the state. To this end, the staff consisting of: the director, four sanitation consultants and two clerical personnel plus the half-time services of a training consultant, directed major emphasis toward providing high quality consultation services and other supporting assistance for the county health departments (CHDs). Sanitarian training and recruitment activities were expanded and specific sanitation program functions continued to show a steady upward rise during the year.

Considerable time was devoted to preparation of recommended revisions of 11 chapters of the State Sanitary Code in accordance with provisions of the 1961 Administrative Procedure Act. These chapters along with other revised regulations were adopted by the State Board of Health on June 24, 1962. Extensive revision of sanitation forms was completed by the end of the year and a number of new forms will be available for distribution to the CHDs in early 1963.

CONSULTANT SERVICE

Consultation services were provided for all of the CHDs throughout the year. Staff members made 349 field visits to assist county health officers and sanitarians in all areas of environmental health. Each county was visited at least once with most counties receiving multiple visits for periods ranging from a few hours to several days.

Studies of the complete environmental sanitation programs were conducted in four counties during the year. In each case, detailed analysis of activities and accomplishments led to specific recommendations for increasing program effectiveness. A number of changes were initiated prior to completion of the respective final survey reports and the counties involved have continued to improve their environmental sanitation programs by systematic implementation of recommended methods and procedures.

Staff consultants provided a wide range of assistance to CHDs in such diversified functions as: investigation of food-borne illnesses, preparation of local ordinances, setting-up pollution surveys, planning

local training programs, providing sanitation services for Seminole Indians and formulating procedures for submission of specimens for viral studies during an encephalitis outbreak. Consultants also conducted essential county sanitation activities on several occasions during the year in cases where local sanitarians were ill or positions otherwise unmanned for extended periods.

TRAINING

Sanitarian in-service training activities were expanded to include two basic 12-week general sanitation courses and three topical short courses, one of which was offered at two locations. The 12-week four weeks of internship in selected CHDs. Thirteen sanitarians, one each from Alachua, Columbia, Dade, Duval, Escambia, Hillsborough, Monroe, Orange, Pinellas and four from Broward, successfully completed this program in 1962. The topical courses were presented as follows: a five-day course in Jacksonville on administration of local sanitation programs which was attended by 25 sanitarians from 22 counties, a five-day course in St. Petersburg on food processing sanitation which was attended by 24 sanitarians from 15 counties and a two-day course held in both Winter Haven and Tallahassee on swimming pool sanitation which was attended by 38 sanitarians from 19 counties. An analysis of topical training activities for the eight-month period extending from October 1961 through May 1962 revealed that 136 sanitarians completed the short courses. Although several attended two or more courses during this period, 48 counties (72 per cent) were represented at least once. Future in-service training plans include continuation of the basic 12-week general courses and short courses on timely topics as needed.

Division personnel conducted a three-day sanitation course for members and inspectors of the Florida Barbers' Sanitary Commission, a 12-lesson medical self-help course for SBH employees, a two-day food sanitation and epidemiology course for nurses at Florida State University and assisted other bureaus and divisions, CHDs, sanitarian associations and other groups in planning and conducting a variety of educational activities throughout the year.

Twelve CHDs: Alachua, Dade, Escambia, Hillsborough, Manatee, Orange, Pasco, Pinellas, Polk, St. Lucie, Sarasota, Volusia, often assisted by staff consultants, reported foodhandler training activities in 1962. The combined total of 3596 foodhandlers trained represented a modest increase of 437 over last year's figure.

RECRUITMENT

Recruitment activities were again directed toward obtaining qualified personnel with sufficient science background and other necessary aptitudes to effectively cope with the ever increasing complexity of environmental health problems in the counties of the state. In coopera-

tion with the Florida Merit System, several major recruitment drives were conducted in critical areas and oral board examinations were instituted to better screen applicants for entry-level sanitarian positions. Recruitment efforts continue to become less productive, however, as salary schedules are set too low to attract a sufficient number of badly needed young college graduates into this field. A study of the problem by the division has led to a recommendation for changes in minimum training requirements and salary levels.

PROGRAM ACTIVITIES

This division is responsible in whole or in part for some 16 specific sanitation programs; issues required SBH licenses or permits for trailer parks, food processing plants, camps, bottled water plants and rendering plants. Another program involves recommendations from the division to U. S. Public Health Service (USPHS) for required federal certification. Field activities associated with each of these programs are carried out by CHD sanitarians. Staff consultants provide technical assistance to the counties in all program areas.

TRAILER PARKS

Florida's 2137 permitted trailer parks (excluding 622 tourist courts formerly reported in this program) provided 89,882 trailer coach spaces at the close of 1962. This represents a net increase of 115 parks and 4069 additional spaces for the year. The division processed 331 permit transactions involving new parks, expansions, changes of ownership and park closures in 1962. County sanitarians made 7582 visits to trailer parks in the interest of environmental health during the year.

FOOD PROCESSING PLANTS

The number and variety of food processing plants continues to show a significant rise each year. Operating permits were issued to 570 plants in 38 counties in 1962. This represents an increase of 133 plants (30 per cent) over last year's figure. County sanitarians made 4170 visits to insure that food processing plants were operated under sanitary conditions throughout the year.

CAMPS

A total of 300 camps consisting of 260 migrant labor camps with space available for 34,770 occupants and 40 recreational camps providing facilities for 4706 persons were licensed in 1962. This represents an increase of 65 camps (28 per cent) over the 1961 figure. County sanitarians continued to exercise close surveillance over all camps during periods of occupancy in order to maintain high-level environmental conditions. This activity necessitated 5366 field visits in 1962.

BOTTLED WATER PLANTS

The number of bottled water plants remained static with 29 plants in 17 counties and four out-of-state shippers being permitted in 1962. One new plant was constructed (replacing an older one) and improvements were effected in other plants. Routine observations and continuous sampling of bottled waters for laboratory analysis were maintained to insure a high quality product. County sanitarians made 318 visits to accomplish this purpose.

RENDERING PLANTS

This minor activity covers only 14 plants, including a single new one, which were permitted in 1962. County sanitarians exercise careful control over these operations in order to minimize odor, waste and other nuisance problems.

COMMON CARRIER FACILITIES

The division cooperates with USPHS in the Interstate Carrier Certification Program which covers water and food placed aboard common carriers and the handling of liquid and solid wastes from such carriers. Complete evaluations of these facilities are made at least twice each year by the CHDs and reports are submitted to the division. These reports serve as a basis for semi-annual recommendations to USPHS. The 112 facilities recommended for approved status in 1962 included: 27 airline catering and watering points, 10 airline servicing areas, seven railroad commissaries and catering points, 20 railroad watering points and 48 vessel watering points.

FOOD ESTABLISHMENTS

All counties continued major food sanitation activity directed toward the prevention of food-borne diseases with increasing emphasis being given to proper handling, preparation and storage of potentially hazardous foods. The counties recorded a total of 30,391 food establishments of all types (an increase of 3334 over the previous year) and sanitarians made 156,113 visits to these establishments in 1962.

TABLE 6
PERMITTED ESTABLISHMENTS AND FACILITIES—1962

County	Trailer Parks	Food Processing Plants	Camps	Bottled Water Plants	Rendering Plants
Alachua	34	19	2	1	
Baker	3				
Bay	58	1			
Bradford					
Brevard	89	3	1		
Broward	119	25	9	1	1
Calhoun	1				
Charlotte	16	3			
Citrus			1		
Clay	12		5		1
Collier	22	1	53		
Columbia	3	1	1		
Dade	95	88	49	4	5
DeSoto		5			
Dixie	5		1		
Duval	47	9	1	1	
Escambia	94	31			2
Flagler	3		4		
Franklin	4	1			
Gadsden	7	1			1
Gilchrist					
Glades	5		5		
Gulf	5	1			
Hamilton	3				
Hardee	1		2		
Hendry	5		5		
Hernando	2		2		
Highlands	8				
Hillsborough	173	55	20	1	2
Holmes					
Indian River	17			1	
Jackson	6	4	2		1
Jefferson	1				
Lafayette					
Lake	29	2	7		
Lee	68	10		1	
Leon	32	3	2		
Levy	7	2			
Liberty					
Madison	1				
Manatee	76	29	10	2	
Marion	32	2	1		
Martin	28	4		1	
Monroe	60				
Nassau	8		1		
Okaloosa	43	1			
Okeechobee	15	1			
Orange	117	31	7	1	
Osceola	12	2		1	
Palm Beach	104	19	51	3	
Pasco	48	4	12	1	
Pinellas	269	75	6	4	
Polk	96	42	21		
Putnam	16	1	4		
St. Johns	10	3			
St. Lucie	22	9	3	1	
Santa Rosa	19				
Sarasota	77	45	2	2	
Seminole	4	10			1
Sumter	7				
Suwannee	3				
Taylor	6				
Union					
Volusia					
Wakulla	86	26	9	3	
Walton	4	1	1		
Washington					
Out-of-State				4	
Totals	2137*	570	300	33	14

*622 tourist courts without trailer coach spaces deleted from list

OTHER PROGRAMS

The CHDs functioned in a variety of additional environmental health activities involving: housing, school health, water, liquid and solid waste disposal, nuisance control, swimming pools, rabies control, hospitals and nursing homes, child-care centers, recreational areas and other facilities. It is evident that such activity will increase as Florida's population continues to spiral upward.

DIVISION OF NUTRITION

MARY BRICE DEAVER, M.S.
Director

It is the primary responsibility of this division to work toward the continued improvement of the nutritional status of the people of Florida. Since good nutrition is basic to good health and to the control and prevention of many diseases, it is important to include a sound nutrition program in the overall health program of each county.

During the year there were several staff changes: one regional nutritionist resigned in the late spring and was replaced in September; one county health department (CHD) nutritionist resigned and that position has not been filled as yet; one CHD created a new position for a nutrition consultant; a special demonstration project was established to explore the value of a "shared nutritionist" for several rural counties but it has been impossible to fill the position; one CHD nutritionist returned to her position from a year's educational leave to obtain a master's in public health.

The pattern of work established previously was continued and expanded so that many counties in each region are now receiving regularly scheduled nutrition services. The program areas may be divided as follows: health department services; community activities; work with other organizations and agencies; services to institutions; training and research responsibilities. Increased work in the area of research which it had been hoped could start this year had to be postponed because of lack of qualified personnel.

In *services to county health departments*, priority was placed on in-service education. During the year 113 group conferences and 260 individual conferences were held. The nutritionists had major responsibility for these and participated in 95 additional meetings with CHD personnel.

Because of increased interest in home care programs and in the use of nutrition in a curative as well as preventive role, numerous requests have been received this year for the latest nutrition information in relation to rehabilitation, cardiac conditions, weight control, metabolic disturbances, diabetes and other chronic illnesses. There

have been many classes and meetings held on these topics with a total attendance of over 1500.

In maternal and child health, there has been considerable interest in developing materials which may be used at a very low educational level. Some simple, very short demonstrations have been used quite effectively with small groups, along with a single illustrated sheet for the patient to take home. Work has been done cooperatively with the Bureau of Maternal and Child Health in following up phenylketonuria (PKU) patients. This involves instruction for parents of the children with PKU as well as working with professional personnel. In cooperation with the Crippled Children's Commission, diet referrals from the regional clinics are followed by the nutrition consultant in the area. Sixty-three group conferences as well as numerous individual ones were held in other services to prenatals and children.

During the first year of the revised migrant project in Palm Beach County, the nutrition consultant has placed priority on planning and preparing for the nutrition component of the project. Special attention has been focused on the growth patterns of the migrant children in relation to diet. Follow-up has been done on the previous work with families and schools in the Belle Glade area as well as extending the nutrition services available to other migrant groups.

In providing *services to the community*, many talks, demonstrations and classes have been held for community organizations and clubs. A variety of topics have been covered including food budgeting, weight control, food additives, food fads, foods for civil defense and family food planning. Groups requesting such meetings were civic clubs, home demonstration groups, PTA groups and other local organizations.

In regard to *services to other organizations and agencies*, much work has been done cooperatively with such agencies as agricultural extension, school food service and the schools themselves working toward the improvement of teenage nutrition. Participation by some counties in the National Youth Power Conference projects has spurred considerable interest among the high school students and has led to increased cooperative planning among the county agencies concerned. In several counties such efforts have led to the formation of county nutrition councils or committees and offer an excellent beginning for cooperative efforts on other nutrition problems. In other counties emphasis has been placed on practical nutrition teaching in the elementary grades in an effort to improve food habits of the children. Since many CHDs devote a high percentage of time to school health, service to schools continues to be one of the most frequent requests for nutrition consultation. During the year, 103 group conferences and 142 individual conferences were held with school personnel. Sixteen dietary surveys in schools were completed, the information being used largely for program planning in nutrition education. Nutrition consultants also took an active part in county and regional school lunch workshops.

The Florida Heart Association and many local affiliates have requested and received assistance in planning and conducting classes for heart patients and their families. Individual diet counseling has also been given at the request of the CHDs and private physicians. Two nutritionists were speakers at the state meetings of the Florida Heart Association.

Work was completed on cost recommendations for low-income diets and for therapeutic diets in cooperation with state welfare personnel. An annual state price index for food was also revised as a reference for state and county personnel in computing diet costs.

Assistance has been provided in several counties in cooperation with county and state welfare personnel in regard to the expanded family surplus commodity program. Demonstrations in the use of the commodity foods, menu plans, recipes and some direct family consultation have resulted in better acceptance and use of the foods. As yet, there are only a limited number of counties in the state participating in this program.

Considerable time was spent in cooperation with other agencies in program planning and assisting with the local arrangements for the Home Economics Section of the Southern Agricultural Workers' Association which met in Florida in 1962. The nutrition staff has actively participated in many national meetings in Florida this year. These included the American Dietetic Association, the American Home Economics Association, the Institute of Food Technologists and the American Public Health Association.

In *service to institutions*, the dietary consultation program for nursing homes has progressed considerably. Several different methods of dietary consultation were used in working with nursing home personnel. Visits were made by the dietary consultant to 40 nursing homes for periods varying from one-half to several days. A nutrition workshop was conducted in one county for six half-day sessions. A pilot food cost study was conducted to provide pertinent information on food purchasing as related to menu planning, size of home, proportion of personnel to patients and physical facilities. A "Diet Guide and Menu Planner" was prepared and distributed to many homes to assist in preplanning of menus to provide an adequate diet. Consultation was also given to several small hospitals and to the state institutions for the mentally retarded. Work has been started on a revision of the "Food Service Manual for Nursing Homes" which was first prepared by the Division of Nutrition in 1958.

In the *area of training*, field experience was provided to two graduate nutrition students from the University of California School of Public Health and one graduate student from the University of Michigan School of Public Health. A short period of field observation was also provided for a student from Thailand at the request of the Food and Agriculture Organization of the United Nations.

Classes have been taught and consultation provided to schools of nursing, to practical nursing programs, to health education students and to undergraduates in food and nutrition courses.

Considerable attention has been focused on methods and procedures of program evaluation this year. A trial evaluation procedure involving a new method of reporting information in regard to services performed has been worked out and will be tested during the coming year.

Recruitment has been a major problem and little success has been achieved in filling existing vacancies or new positions. It is felt that definite action in regard to salary ranges and job specifications is necessary to alleviate this situation. Because of such difficulties, it has been necessary to curtail some activities and postpone plans in regard to a rural nutrition demonstration program.

In planning for the future, it is becoming more apparent that efforts must be increased to provide basic nutrition information in the student training of future doctors, nurses and other allied professional personnel. More attention will be paid to the older population group. However, the preventive aspects of nutrition will be emphasized as well, beginning with the early years of life and with special attention to the teen years.

TABLE 7
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	A. COMMUNICABLE DISEASE CONTROL										
	Admissions to Service	Field and Office Visits	Treatment for Parasites	IMMUNIZATIONS COMPLETED							
				Smallpox	Diphtheria	Whooping Cough	Tetanus	Poliomyelitis	Typhoid	Rabies—Humans	Rabies—Animals
	1	2-3	4	5	6	7	8	9	10	11	12
Total 1962	5409	11082	39219	90704	147646	91942	230474	312104	77444	51	53321
Alachua	45	61	1926	2004	2605	2114	3956	5376	982	0	0
Baker	20	22	997	436	580	337	120	1526	859	0	99
Bay	29	54	167	1645	1581	1574	3898	4690	7699	0	0
Bradford	18	21	112	216	627	310	747	1396	42	0	172
Brevard	107	235	559	1386	3038	1657	3286	3698	500	7	0
Broward	224	372	375	3182	6420	3631	7120	8401	224	0	0
Calhoun	9	9	165	306	393	258	720	1505	1298	0	0
Charlotte	951	2335	239	333	802	315	857	588	122	0	0
Citrus	1	1	43	136	443	189	494	1016	160	0	0
Clay	23	33	95	238	369	248	535	828	6	0	346
Collier	48	277	501	290	2107	738	2184	1796	264	1	0
Columbia	0	0	1384	619	5499	4274	6069	5003	3318	0	0
Dade	59	1015	349	23245	19070	16705	50720	42942	829	4	0
DeSoto	13	29	238	292	484	308	553	1150	38	0	0
Dixie	26	47	163	102	476	301	577	824	481	0	0
Duval	15	23	263	1294	4123	3030	5754	8954	637	7	0
Escambia	10	22	1354	6854	14333	10790	32412	32749	14055	0	5628
Flagler	3	3	395	149	339	148	442	688	14	0	0
Franklin	37	46	199	520	381	381	1193	1485	424	0	0
Gadsden	37	37	5756	1816	2980	975	5058	7811	3142	0	0
Gilchrist	33	41	422	311	303	208	733	685	424	0	0
Glades	28	34	44	81	400	74	420	497	381	0	62
Gulf	0	0	619	546	909	687	1261	1373	937	0	0
Hamilton	0	0	1002	118	413	278	486	653	214	0	181
Hardee	4	9	217	182	528	298	661	919	80	0	0
Hendry	27	56	167	447	935	295	941	905	561	0	85
Hernando	11	18	144	154	443	120	783	1242	2	0	0
Highlands	3	6	111	130	547	319	579	811	37	0	0
Hillsborough	1222	1872	1708	5551	9444	5855	10254	5830	492	10	33474
Holmes	13	27	984	503	943	457	1143	1626	626	0	0
Indian River	11	23	209	409	789	379	1133	1101	670	0	0
Jackson	80	101	399	1319	1833	1071	3836	5183	1716	0	0
Jefferson	2	3	323	861	652	517	1156	1693	1255	1	423
Lafayette	4	4	84	136	78	54	150	145	52	0	0
Lake	20	53	155	223	765	402	775	1010	12	0	0
Lee	0	0	317	1643	1952	840	3375	5018	1695	0	0
Leon	200	241	416	3127	1598	1217	2509	3911	1822	0	0
Levy	9	14	438	410	1124	279	1215	2086	755	0	0
Liberty	11	12	354	258	346	145	828	790	439	1	0
Madison	3	5	495	872	1147	401	1781	1933	578	1	126
Manatee	174	211	235	349	585	264	979	48947	96	2	3005
Marion	37	111	1006	2002	2773	1482	3901	4420	3215	0	0
Martin	3	3	434	601	944	335	1083	674	944	0	0
Monroe	40	57	9	973	1448	505	1625	1984	860	0	0
Nassau	44	53	756	1206	1449	737	2460	4682	3475	3	315
Okaloosa	202	224	294	1425	3130	2146	4323	4651	2893	0	0
Okeechobee	3	4	39	80	221	97	255	347	110	0	0
Orange	267	575	534	3343	8068	3238	9344	13636	7134	0	1890
Osceola	4	15	174	205	841	576	841	1528	497	0	0
Palm Beach	239	838	458	4034	9296	4116	10510	12978	1232	0	0
Pasco	7	24	967	347	869	754	890	3154	25	0	0
Pinellas	417	681	275	2159	4953	3903	5530	8257	260	0	38
Polk	213	429	1213	3696	7203	4093	8887	12869	685	12	7231
Putnam	99	107	707	1044	1348	365	1660	1112	19	0	0
St. Johns	25	31	267	1406	2792	447	2853	4813	1112	0	0
St. Lucie	1	4	10	98	260	227	492	339	51	0	0
Santa Rosa	1	2	517	752	1381	1067	1807	2141	1299	0	0
Sarasota	67	97	88	357	1096	676	1205	1293	38	0	0
Seminole	48	132	3748	1180	1474	1158	2271	3650	2071	0	0
Sumter	47	86	1122	726	655	485	666	921	377	2	0
Suwannee	2	5	533	242	721	447	1367	1781	724	0	0
Taylor	8	11	320	241	956	503	1196	2174	344	0	156
Union	9	30	158	107	227	131	272	380	312	0	0
Volusia	80	164	216	475	690	600	723	1808	59	0	0
Wakulla	11	20	194	70	213	210	610	396	479	0	0
Walton	5	7	442	495	920	589	1084	1403	540	0	0
Washington	0	0	615	747	1334	612	1842	1929	751	0	90

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	B. VENEREAL DISEASE CONTROL					
	Admissions to Service	Diagnosed in Clinic	Patients Interviewed	Number of Contacts Named	Field Visits	Office Visits
	1	2	3	4	5	6
TOTAL 1962	43201	14398	6943	13275	35547	80515
Alachua	102	46	63	8	29	155
Baker	5	2	2	1	12	14
Bay	170	99	61	80	278	208
Bradford	51	30	30	23	27	79
Brevard	49	7	37	6	68	76
Broward	889	573	623	1002	1797	1920
Calhoun	18	13	9	7	4	25
Charlotte	4	0	1	0	0	9
Citrus	22	4	11	11	34	22
Clay	26	7	8	7	24	45
Collier	128	65	75	143	254	173
Columbia	162	101	101	60	125	141
Dade	14931	3248	1642	3539	13517	38137
DeSoto	4	0	4	0	0	8
Dixie	12	6	17	3	10	15
Duval	11979	1661	577	1880	4862	14939
Escambia	2720	2648	183	947	2120	2989
Flagler	9	6	11	5	8	34
Franklin	4	2	4	0	0	8
Gadsden	99	99	90	37	90	137
Gilchrist	2	2	2	3	2	5
Glades	11	7	7	6	6	13
Gulf	8	1	1	3	8	22
Hamilton	8	7	0	0	4	9
Hardee	9	1	2	6	9	8
Hendry	74	11	20	25	71	79
Hernando	9	7	6	10	16	13
Highlands	52	42	73	104	165	93
Hillsborough	3477	1284	626	1170	3250	8439
Holmes	10	1	7	8	1	20
Indian River	124	95	102	101	20	142
Jackson	24	22	19	6	9	30
Jefferson	31	24	10	7	7	46
Lafayette	4	3	1	1	3	8
Lake	17	10	3	3	16	15
Lee	65	41	54	27	82	66
Leon	953	782	12	60	14	1330
Levy	48	18	22	40	23	91
Liberty	2	2	2	1	0	4
Madison	27	26	27	9	8	29
Manatee	259	138	154	120	260	325
Marion	1026	359	223	460	1263	1769
Martin	91	42	75	90	147	34
Monroe	124	98	91	82	236	281
Nassau	23	14	7	1	11	57
Okaloosa	42	38	39	35	3	47
Okeechobee	6	1	4	7	22	15
Orange	1066	572	292	944	2034	2034
Osceola	29	28	20	57	26	134
Palm Beach	1098	683	405	747	2137	1665
Pasco	19	16	17	10	4	22
Pinellas	1472	521	238	481	1197	1864
Polk	507	255	115	261	421	658
Putnam	115	65	98	43	34	151
St. Johns	213	96	111	82	10	375
St. Lucie	69	69	99	94	267	96
Santa Rosa	10	5	7	4	4	19
Sarasota	135	46	54	174	207	257
Seminole	171	104	127	59	147	311
Sumter	40	40	40	20	16	59
Suwannee	28	22	12	5	11	32
Taylor	41	30	29	15	19	44
Union	3	1	1	1	0	12
Volusia	236	120	118	110	83	615
Wakulla	8	5	5	11	1	9
Walton	23	18	10	11	14	26
Washington	8	4	7	2	0	8

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	C. TUBERCULOSIS CONTROL									
	ADMISSIONS TO SERVICE				PERSONS X-RAYED		Tuberculin Test	Field Visits	Office Visits	Cases Hospitalized
	Active Cases	Quiescent Cases	Inactive Cases	Contacts and Suspects	Miniature Films	14"x17" Films				
1	2	3	4	5	6	7	8	9	10	
TOTAL 1962	2270	718	6236	19809	482053	40804	73573	37183	49403	1850
Alachua	14	10	42	106	9430	377	472	480	175	13
Baker	3	0	3	20	944	38	67	43	23	2
Bay	16	4	95	185	0	482	104	128	314	14
Bradford	3	2	29	44	2442	88	48	207	60	3
Brevard	24	14	105	588	2	2852	5136	1140	1282	27
Broward	130	39	372	916	47808	190	5268	3649	1361	74
Calhoun	7	6	20	13	0	58	29	17	124	3
Charlotte	7	1	22	90	2768	1202	368	280	207	7
Citrus	2	2	6	15	0	10	9	23	23	3
Clay	6	26	12	43	3331	61	65	135	41	2
Collier	12	7	41	113	5532	154	1145	220	227	9
Columbia	6	5	13	30	683	77	56	84	38	3
Dade	376	85	967	6826	75155	7648	3533	4498	18796	460
DeSoto	2	0	16	28	4545	413	2	147	126	0
Dixie	2	3	4	24	0	23	29	77	45	2
Duval	135	83	547	401	4773	2469	526	778	1970	238
Escambia	161	20	314	696	11359	1038	674	3732	337	76
Flagler	2	0	6	39	1020	81	404	40	201	2
Franklin	2	1	13	46	1684	70	33	41	114	6
Gadsden	19	1	46	177	9610	85	155	622	172	17
Gilchrist	4	3	1	30	366	24	77	57	43	1
Glades	1	0	3	14	860	244	21	19	17	1
Gulf	8	1	19	91	2456	461	73	111	140	8
Hamilton	3	3	7	24	1065	39	27	19	76	6
Hardee	8	12	10	37	0	485	1913	89	81	3
Hendry	5	0	13	41	2158	161	247	115	96	1
Hernando	4	0	15	4	0	25	13	40	29	4
Highlands	9	11	24	102	5219	255	222	191	174	8
Hillsborough	415	77	881	3940	77431	1569	7765	3977	5196	192
Holmes	4	0	11	138	3	93	400	110	236	2
Indian River	8	2	8	19	0	148	199	106	71	6
Jackson	23	4	41	214	0	351	649	468	423	10
Jefferson	5	0	7	14	0	0	33	45	19	2
Lafayette	2	1	6	0	0	5	0	14	10	1
Lake	24	6	137	245	13044	423	58	922	189	29
Lee	29	10	50	52	17286	379	4136	206	237	16
Leon	46	10	112	360	12392	329	2636	1280	956	22
Levy	7	5	28	39	639	41	35	102	33	9
Liberty	5	3	1	28	663	14	35	42	34	4
Madison	8	0	42	95	353	43	133	52	218	10
Manatee	23	4	91	146	9726	65	130	525	431	14
Marion	25	2	54	93	0	591	1312	386	63	19
Martin	14	6	41	93	3752	186	1878	164	121	10
Monroe	11	18	35	85	3595	579	1193	415	310	8
Nassau	1	6	19	49	4279	103	0	163	99	2
Okaloosa	3	4	30	47	0	2480	1131	235	150	3
Okeechobee	4	1	15	13	1188	36	16	33	43	1
Orange	104	36	178	388	15743	1050	436	1317	1906	62
Osceola	11	1	27	18	2517	100	59	52	242	4
Palm Beach	158	79	240	326	26960	1247	1512	2045	870	150
Pasco	13	6	32	129	1547	156	86	162	306	7
Pinellas	95	4	423	600	30346	1993	1719	1804	4849	79
Polk	88	37	488	1036	28971	1247	15755	2587	3155	52
Putnam	20	3	20	74	2289	1013	2768	136	109	19
St. Johns	5	6	22	20	0	203	1566	66	56	5
St. Lucie	21	2	55	59	0	201	88	384	296	21
Santa Rosa	8	1	22	17	0	350	2430	76	91	6
Sarasota	22	6	63	100	6320	335	134	639	477	12
Seminole	22	6	29	146	0	414	1521	370	680	23
Sumter	10	0	7	50	0	131	559	123	132	8
Suwannee	6	2	33	47	914	117	160	46	139	3
Taylor	6	1	11	17	3292	15	75	48	21	10
Union	0	1	5	0	61	28	3	3	32	0
Volusia	34	19	166	241	23929	5495	582	933	628	28
Wakulla	8	1	23	23	920	14	10	49	28	4
Walton	8	2	20	63	683	92	1619	96	136	1
Washington	3	7	20	42	0	58	36	20	119	3

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	D. MATERNITY SERVICE										E. CHILD HEALTH SERVICES		
	Patients Admitted to Maternity Medical Service	Visits by Ante-partum Cases to Medical Conferences	Patients Admitted to Maternity Nursing Service	Field Nursing Visits	Office Nursing Visits	Number of Midwife Meetings	Visits for Midwife Supervision	No. of Midwife Deliveries Supervised by Health Dept. Personnel	Individuals Enrolled in Classes for Expectant Parents	Admissions To Well Child Medical Service			
										Infants	Ages 1-4	Ages 5 and Over	
	1-2	3	6	7	8	9	10	11	12	1A, 2A	1B, 2B	1C, 2C	
TOTAL 1962	14957	44970	23015	47043	60665	1049	1050	23	465	14558	13376	6852	
Alachua	265	558	629	1812	1493	0	35	1	113	125	21	58	
Baker	25	34	74	115	42	2	16	0	0	2	3	4	
Bay	142	142	183	448	213	1	14	0	0	133	18	5	
Bradford	70	163	78	287	32	0	18	0	0	38	50	3	
Brevard	248	825	390	1177	1663	3	60	3	0	97	26	16	
Broward	343	389	588	1522	1102	33	23	1	0	559	16	15	
Calhoun	3	4	27	4	87	1	3	0	0	0	0	1	
Charlotte	0	0	8	15	0	0	0	0	0	0	2	3	
Citrus	3	3	3	9	2	0	0	0	0	0	0	0	
Clay	88	246	135	399	281	0	6	0	0	29	18	110	
Collier	122	383	156	134	755	1	11	0	0	51	10	16	
Columbia	198	193	236	491	453	11	61	5	0	116	95	74	
Dade	2998	9497	5229	13833	9160	8	44	0	0	5698	7008	2316	
DeSoto	0	0	0	0	0	0	0	0	0	0	0	0	
Dixie	25	42	46	62	115	1	19	1	21	4	2	1	
Duval	44	147	219	336	289	0	0	0	47	365	104	167	
Escambia	794	2101	1082	2202	2828	0	20	0	0	494	89	35	
Flagler	72	237	91	79	243	1	0	0	0	36	7	11	
Franklin	9	22	24	38	59	0	1	0	0	3	5	0	
Gadsden	761	1374	1106	1013	1806	10	175	1	0	327	178	75	
Gilchrist	20	34	19	50	27	2	1	0	0	6	0	0	
Glades	27	78	30	43	62	0	0	0	0	10	0	0	
Gulf	18	40	38	126	99	0	2	0	0	16	16	4	
Hamilton	25	40	189	529	272	5	0	0	0	0	0	0	
Hardee	34	128	35	29	158	0	0	0	0	8	2	0	
Hendry	36	98	83	254	308	0	0	0	87	39	32	14	
Hernando	9	17	10	9	18	0	3	0	0	0	0	0	
Highlands	21	31	11	8	13	0	6	0	0	8	4	6	
Hillsborough	2432	8547	3071	5047	10817	0	0	0	0	2489	3044	2089	
Holmes	1	1	67	7	77	0	5	1	0	2	7	0	
Indian River	0	0	47	86	84	5	4	0	0	0	0	0	
Jackson	125	163	331	367	876	15	76	4	0	75	27	13	
Jefferson	40	87	78	145	123	0	2	0	0	71	37	14	
Lafayette	10	12	16	44	50	0	11	0	0	0	0	0	
Lake	118	273	219	311	320	0	21	0	0	28	1	0	
Lee	219	252	419	542	973	9	5	0	0	103	1	1	
Leon	228	738	435	1323	858	11	21	0	7	84	141	78	
Levy	79	200	36	31	20	0	3	0	0	19	0	1	
Liberty	14	17	18	9	27	1	0	0	0	9	20	9	
Madison	63	204	163	389	291	2	24	2	0	12	9	10	
Manatee	83	377	217	566	641	0	0	0	0	109	103	194	
Marion	0	0	62	166	5	3	32	0	0	0	0	0	
Martin	0	0	0	0	0	0	0	0	0	0	0	0	
Monroe	65	106	112	236	215	6	8	1	0	19	18	8	
Nassau	4	4	29	40	11	2	42	0	0	10	18	17	
Okaloosa	35	38	114	97	117	0	0	0	0	11	1	0	
Okeechobee	2	2	2	1	5	0	0	0	0	0	0	0	
Orange	991	3124	1134	878	3239	5	1	0	0	354	188	194	
Osceola	132	316	137	122	312	2	0	0	0	81	48	0	
Palm Beach	572	1976	916	3008	2741	4	0	0	115	763	130	97	
Pasco	2	2	71	117	81	1	19	0	0	0	0	0	
Pinellas	862	4034	935	1697	5279	23	0	0	9	815	1240	496	
Polk	1209	3574	1575	3627	6546	9	57	1	6	598	41	190	
Putnam	238	687	296	259	726	8	12	0	0	133	13	77	
St. Johns	52	109	89	131	206	4	0	0	0	19	17	20	
St. Lucie	211	755	252	206	990	0	9	0	0	38	5	2	
Santa Rosa	0	0	2	5	3	0	0	0	0	1	4	32	
Sarasota	106	435	179	540	516	0	0	0	60	0	0	0	
Seminole	165	469	360	450	675	2	99	1	0	62	11	20	
Sumter	15	16	117	148	135	2	22	0	0	6	1	0	
Suwannee	33	61	47	43	133	0	3	0	0	9	4	5	
Taylor	51	91	59	64	176	2	4	0	0	23	5	13	
Union	54	150	83	59	151	0	0	0	0	84	29	32	
Volusia	297	1238	472	1120	1482	2	31	1	0	351	495	296	
Wakulla	22	59	26	37	17	1	6	0	0	13	8	2	
Walton	6	17	37	25	1	13	0	0	0	0	0	0	
Washington	21	21	93	64	142	0	1	0	0	3	1	2	

TABLE 7 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	E. CHILD HEALTH SERVICES (Continued)											
	VISITS MEDICAL CONFERENCES			ADMISSIONS TO NURSING SERVICE			FIELD NURSING VISITS			OFFICE NURSING VISITS		
	Infants	Ages 1-4	Ages 5-over	Infants	Ages 1-4	Ages 5-over	Infants	Ages 1-4	Ages 5-over	Infants	Ages 1-4	Ages 5-over
	3A	3B	3C	5A	5B	5C	6A	6B	6C	7A	7B	7C
TOTAL 1962	29292	24927	9603	27363	33711	63459	55064	61936	64450	37432	36525	138070
Alachua	158	34	81	679	600	1218	1849	1567	1408	526	498	1097
Baker	2	3	4	71	249	260	157	541	550	23	25	36
Bay	389	45	5	188	97	281	623	320	576	418	88	302
Bradford	53	52	4	147	419	406	418	1263	728	11	19	224
Brevard	133	29	16	385	669	1012	1076	2107	2863	220	254	616
Broward	820	64	152	1001	583	1294	2506	1682	3015	695	52	236
Calhoun	0	0	1	11	19	77	7	28	97	11	8	55
Charlotte	0	2	4	473	175	1780	614	84	883	395	281	2895
Citrus	0	0	0	13	35	46	19	56	121	2	3	2
Clay	38	22	126	126	234	715	413	482	682	63	110	727
Collier	84	16	19	112	60	146	111	80	212	201	59	50
Columbia	116	95	74	258	587	235	443	711	314	135	191	115
Dade	11895	11213	3135	6426	8857	9831	15564	21220	10741	10950	10673	67406
DeSoto	0	0	0	3	12	250	1	234	3	12	64	64
Dixie	4	2	1	57	72	82	95	130	134	46	19	17
Duval	919	217	210	850	235	812	829	245	518	1682	404	602
Escambia	2146	344	213	1187	460	964	2637	1308	1316	1510	366	2659
Flagler	55	16	24	72	154	165	84	132	66	80	151	174
Franklin	4	6	0	45	68	48	81	114	97	15	19	35
Gadsden	368	199	81	872	1745	706	1211	2684	630	431	256	446
Gilchrist	7	4	6	21	65	166	66	154	257	44	126	363
Glades	20	0	0	14	13	24	16	25	32	17	25	16
Gulf	16	17	5	57	56	64	86	142	119	66	54	54
Hamilton	0	0	0	90	34	20	274	283	296	72	26	74
Hardee	9	2	0	35	33	80	48	34	74	9	5	32
Hendry	56	61	42	71	94	167	162	221	306	92	102	155
Hernando	0	0	0	8	41	69	10	68	86	3	4	1
Highlands	12	6	7	11	8	84	12	14	82	6	10	50
Hillsborough	4665	8456	2762	4186	6297	6713	4430	4417	5508	7159	11603	6687
Holmes	3	7	0	11	45	297	7	27	113	18	47	480
Indian River	0	0	0	58	19	491	230	73	249	26	8	515
Jackson	101	39	17	270	234	151	321	383	251	286	86	152
Jefferson	91	44	16	218	471	228	391	539	195	221	442	127
Lafayette	0	0	0	84	76	112	157	203	190	68	96	128
Lake	28	1	0	295	541	592	426	799	695	171	225	334
Lee	120	5	1	335	363	306	488	443	363	170	42	74
Leon	106	197	122	436	1291	1828	1558	4716	3396	249	1054	1493
Levy	22	0	2	30	25	68	27	24	66	16	6	19
Liberty	9	20	10	9	18	49	13	19	49	2	3	6
Madison	19	10	14	152	113	483	381	214	320	51	26	421
Manatee	144	134	227	425	797	2199	453	272	759	707	1363	2400
Marion	0	0	0	116	85	603	314	226	759	5	2	261
Martin	0	0	0	29	123	179	31	95	15	76	53	862
Monroe	23	23	12	167	467	586	277	850	752	185	303	862
Nassau	11	21	17	37	81	299	54	79	273	11	23	526
Okaloosa	15	1	0	118	104	360	104	265	764	103	62	212
Okeechobee	0	0	0	3	2	84	3	10	92	0	0	37
Orange	695	428	280	929	1114	1675	1013	957	1627	1210	1301	1745
Osceola	149	103	0	96	78	98	95	106	105	212	150	259
Palm Beach	1881	252	177	1231	445	3464	5303	2259	6242	2166	249	6736
Pasco	0	0	0	83	146	62	156	319	96	69	72	28
Pinellas	1821	1618	580	1175	1846	9975	2800	3502	7359	2314	2770	21869
Polk	740	69	201	1624	1311	5309	3658	2325	3149	2266	880	6311
Putnam	133	13	80	229	134	184	275	182	136	159	101	157
St. Johns	27	20	37	81	36	122	149	44	138	42	22	98
St. Lucie	46	16	35	150	231	28	238	635	35	55	14	37
Santa Rosa	1	4	32	7	47	1195	12	64	366	15	47	1312
Sarasota	0	0	0	147	113	642	464	305	1141	1	3	323
Seminole	75	11	35	257	72	199	431	184	616	239	78	672
Sumter	6	1	0	136	75	50	145	85	60	106	80	111
Suwannee	9	5	5	92	230	163	142	362	200	95	161	107
Taylor	27	7	13	50	30	28	91	34	56	55	11	47
Union	143	74	113	135	125	105	110	171	168	159	109	146
Volusia	857	892	601	558	690	2157	780	887	1161	983	1062	3077
Wakulla	16	8	2	26	42	212	33	40	94	9	8	127
Walton	0	0	0	27	27	1137	39	42	231	25	31	1598
Washington	5	1	2	68	93	24	53	84	13	63	69	20

TABLE 7 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	F. SCHOOL HEALTH													
	Pupils Examined By Physician						Screening By Other Health Dept. Personnel							
	Parent Present			Parent Not Present			Visual			Audiometer				
	Number Examined 1A	Referred for Further Diagnosis and Treatment 1B	Completed Referrals 1C	Number Examined 2A	Referred for Further Diagnosis and Treatment 2B	Completed Referrals 2C	Number Examined 3A	Referred for Further Diagnosis and Treatment 3B	Completed Referrals 3C	Number Examined 4A	Referred for Further Diagnosis and Treatment 4B	Completed Referrals 4C	Nurse-Teacher Conferences 7	
TOTAL 1962	29416	3439	2536	37003	3023	755	391290	32252	11667	187438	5779	1335	105044	
Alachua	85	6	7	0	0	0	6155	600	68	2748	87	24	1704	
Baker	46	4	0	102	13	0	624	72	20	17	2	0	214	
Bay	60	14	2	5	0	0	10314	1021	812	697	63	12	2626	
Bradford	262	7	0	92	2	0	288	8	4	0	0	0	89	
Brevard	1	1	0	1	10	10	1	1	1	0	0	0	923	
Broward	290	69	7	673	599	90	10990	2075	819	8	1	1	6336	
Calhoun	0	0	0	20	0	0	159	84	17	29	2	0	263	
Charlotte	31	0	0	745	119	56	2027	164	69	688	35	26	608	
Citrus	59	1	0	440	10	0	49	15	4	20	0	0	257	
Clay	166	21	1	89	8	0	1661	86	10	1	1	0	631	
Collier	39	7	5	71	14	12	2341	328	48	1050	109	4	1059	
Columbia	129	18	15	180	4	3	59	12	8	14	4	4	31	
Dade	2367	0	0	16649	0	0	65855	5930	2023	39475	940	0	26968	
DeSoto	89	43	4	319	15	1	2772	355	73	2411	436	4	482	
Dixie	95	28	1	340	44	0	112	0	0	72	0	0	96	
Duval	4	4	4	1	1	0	9198	1104	425	10	7	0	1543	
Escambia	13	3	0	169	0	0	15632	1670	391	4171	177	68	3139	
Flagler	94	0	0	44	0	1	706	169	8	2	0	0	33	
Franklin	4	2	0	6	3	0	386	29	5	390	40	9	40	
Gadsden	256	35	1	203	10	0	2517	166	60	673	22	7	1203	
Gilchrist	58	23	11	161	49	23	53	16	0	33	0	0	242	
Glades	194	0	1	75	18	4	76	29	4	0	0	0	142	
Gulf	10	2	2	2	0	0	1592	131	25	271	18	3	302	
Hamilton	221	11	9	197	3	0	2	0	0	663	0	0	244	
Hardee	47	0	0	1082	49	17	635	51	10	652	5	1	463	
Hendry	218	49	12	781	84	36	3386	198	97	399	2	1	566	
Hernando	215	1	0	813	47	21	62	8	0	0	0	0	4	
Highlands	226	5	0	775	230	0	26	10	0	2	1	0	104	
Hillsborough	2555	1440	1293	3893	623	105	55649	3802	1395	25768	1002	304	10392	
Holmes	621	56	0	230	0	0	558	125	4	13	6	0	211	
Indian River	0	0	0	14	0	0	2305	100	50	2012	80	2	294	
Jackson	56	1	6	71	0	0	268	131	7	262	11	0	563	
Jefferson	288	24	9	203	35	54	2804	245	94	149	13	0	139	
Lafayette	12	4	0	36	3	0	1	0	0	0	0	0	31	
Lake	844	14	3	164	3	0	4549	432	74	266	19	8	722	
Lee	0	0	0	32	0	0	1663	204	53	25	0	1	406	
Leon	384	3	2	22	2	1	7171	702	364	3812	168	112	1649	
Levy	138	3	4	947	54	2	961	27	3	837	3	0	21	
Liberty	64	0	0	60	0	2	87	3	1	194	1	0	27	
Madison	23	1	2	117	1	0	238	48	24	0	1	0	160	
Manatee	107	1	0	32	0	0	1378	254	84	1302	38	6	746	
Marion	0	0	0	176	0	0	1691	152	51	560	72	8	971	
Martin	96	5	0	114	15	1	2045	188	54	96	26	0	147	
Monroe	74	2	0	199	15	0	7025	454	92	5885	78	49	1734	
Nassau	111	0	0	92	2	0	178	26	20	3	3	3	464	
Okaloosa	616	28	11	618	14	0	2337	298	22	281	3	4	438	
Okecchobee	56	7	4	0	0	0	528	57	17	63	10	4	55	
Orange	194	6	3	22	9	2	23924	1458	501	10128	367	87	3538	
Osceola	139	3	1	10	0	0	2857	700	650	14	6	3	302	
Palm Beach	389	10	1	1321	322	73	23861	2686	884	9506	529	48	6863	
Pasco	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pinellas	15652	1297	1006	1705	355	210	58404	2464	971	46115	767	348	12436	
Polk	325	40	13	68	4	0	17778	1054	593	3908	95	19	7481	
Putnam	56	0	0	74	3	1	752	60	28	0	0	0	228	
St. Johns	22	14	2	415	32	3	64	23	18	1	0	0	178	
St. Lucie	0	0	0	0	0	0	469	36	0	0	0	0	0	
Santa Rosa	414	0	1	783	14	0	557	28	9	100	5	18	420	
Sarasota	4	1	0	142	55	0	9513	261	123	5952	5	18	1812	
Seminole	390	61	95	108	0	17	8195	642	267	8195	226	121	1410	
Sumter	235	13	0	124	3	0	1498	90	2	5	0	0	130	
Suwannee	49	34	0	284	111	2	913	64	25	317	13	9	278	
Taylor	16	0	0	156	0	0	2	0	0	250	0	0	29	
Union	87	8	0	107	6	0	75	9	6	0	0	0	46	
Volusia	355	4	2	48	0	0	11135	980	136	9179	213	6	120	
Wakulla	89	0	0	231	6	2	585	23	9	663	13	4	75	
Walton	172	4	0	342	4	0	753	85	25	440	5	1	139	
Washington	4	0	0	4	0	0	241	9	9	15	0	0	57	

TABLE 7 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

G. DENTAL HEALTH (Dentist Only)														
COUNTY	DENTAL INSPECTIONS				NUMBER REQUIRING TREATMENT					Number Admitted to Clinic for Treatment	Total Fillings	Total Extractions	Topical Applica- tions of Fluoride	
	Ages 1-4	Ages 5-17	Maternity Patients	Other Adults	Ages 1-4	Ages 5-17	Maternity Patients	Other Adults	Number Completing Treatment					
1A	1B	1C	1D	2A	2B	2C	2D	3	4	5	6	7		
TOTAL 1962	119	100259	100	84	39	56674	140	180	7598	24673	65892	19463	1006	
Alachua	0	12944	0	0	0	7736	0	0	227	1147	4627	531	149	
Baker	0	432	0	0	0	407	0	0	34	0	43	90	0	
Bay	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bradford	0	0	0	0	0	0	0	0	0	0	0	0	0	
Brevard	0	0	0	0	0	0	0	0	0	0	0	0	0	
Broward	9	603	4	0	1	95	8	0	196	522	3363	546	1	
Calhoun	0	0	0	0	0	0	0	0	0	0	0	0	0	
Charlotte	0	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clay	0	24	0	0	0	4	0	0	0	0	0	0	0	
Collier	0	0	0	0	0	0	0	0	0	0	0	0	0	
Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	
Dade	0	0	0	0	0	0	0	885	8410	27380	5464	8		
DeSoto	0	81	0	0	0	41	0	1	0	0	0	0	0	
Dixie	0	0	0	0	0	0	0	0	0	0	0	0	0	
Duval	0	700	0	0	0	819	0	147	1351	2419	1161	221	0	
Escambia	0	208	0	0	0	194	0	103	725	772	539	0	0	
Flagler	0	911	0	0	0	699	0	28	310	594	125	176	0	
Franklin	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gadsden	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gilchrist	0	0	0	0	0	0	0	0	0	0	0	0	0	
Glades	0	70	0	0	0	19	0	20	0	29	9	0	0	
Gulf	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hamilton	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hardee	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hendry	0	662	0	0	0	400	0	10	48	108	69	0	0	
Hernando	0	0	0	0	0	0	0	0	0	0	0	0	0	
Highlands	0	5070	0	0	0	4126	0	77	194	547	255	42	0	
Hillsborough	0	13497	0	0	0	8365	0	2307	1917	5391	2366	9	0	
Holmes	0	0	0	0	0	0	0	0	0	0	0	0	0	
Indian River	0	0	0	0	0	0	0	0	0	0	0	0	0	
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	0	
Jefferson	0	165	0	0	0	94	0	41	95	161	33	0	0	
Lafayette	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lake	5	3771	4	0	5	1560	10	204	737	4130	709	156	0	
Lee	0	0	0	0	0	0	0	0	0	0	0	0	0	
Leon	0	0	0	0	0	0	0	0	0	0	0	0	0	
Levy	0	0	0	0	0	0	0	0	0	0	0	0	0	
Liberty	0	0	0	0	0	0	0	0	0	0	0	0	0	
Madison	0	0	0	0	0	0	0	0	0	0	0	0	0	
Manatee	1	1553	4	0	1	849	4	9	89	139	29	0	0	
Marion	0	1020	0	0	0	544	0	121	764	1035	644	0	0	
Martin	0	0	0	0	0	0	0	0	0	0	0	0	0	
Monroe	26	174	4	6	1	145	3	23	117	83	159	0	0	
Nassau	0	0	0	0	0	0	0	0	0	0	0	0	0	
Okaloosa	0	0	0	0	0	0	0	0	0	0	0	0	0	
Okeechobee	0	0	0	0	0	0	0	0	0	0	0	0	0	
Orange	54	36039	0	0	9	13664	0	17	635	1262	1785	1204	0	
Osceola	0	0	0	0	0	0	0	0	0	0	0	0	0	
Palm Beach	15	4115	51	78	16	3807	82	158	1348	3816	4903	2664	8	
Pasco	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pinellas	0	9212	0	0	0	4800	0	607	602	2617	436	0	0	
Polk	0	6238	0	0	0	5470	0	104	433	1141	588	0	0	
Putnam	0	1022	0	0	0	871	0	74	737	973	541	38	0	
St. Johns	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. Lucie	0	0	0	0	0	0	0	0	0	0	0	0	0	
Santa Rosa	0	0	0	0	0	673	0	30	673	980	602	0	0	
Sarasota	0	1034	33	0	0	598	33	7	77	70	5	0	0	
Seminole	5	113	0	0	2	93	0	14	42	13	95	0	0	
Sumter	0	0	0	0	0	0	0	0	0	0	0	0	0	
Suwannee	0	0	0	0	0	0	0	0	0	0	0	0	0	
Taylor	0	0	0	0	0	0	0	0	0	0	0	0	0	
Union	0	0	0	0	0	0	0	0	0	0	0	0	0	
Volusia	4	601	0	0	4	601	0	346	605	2589	599	198	0	
Wakulla	0	0	0	0	0	0	0	0	0	0	0	0	0	
Walton	0	0	0	0	0	0	0	0	0	0	0	0	0	
Washington	0	0	0	0	0	0	0	0	0	0	0	0	0	

TABLE 7 (Continued)

MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	H. CHRONIC DISEASES											
	Cancer Service				Diabetes Service				Heart Disease Control			
	Admission To Service	Field Visits	Office Visits	Cervical Cytology Examination	Admission to Service	Field Visits	Office Visits	Relatives Tested	Non-Relatives or Others Tested	Admissions to Cardio-Vascular Disease	Field Visits	Office Visits
	1	2	3	4	5	6	7	8	9	10	11	12
TOTAL 1962	5520	13611	14284	9250	3072	12561	15224	498	3627	5342	22915	9902
Alachua	289	472	195	127	58	360	69	0	0	96	495	159
Baker	12	47	13	0	4	3	21	0	0	55	34	124
Bay	9	54	5	0	12	87	2	0	0	37	220	15
Bradford	53	170	11	0	6	24	1	0	0	44	348	72
Brevard	68	295	179	29	48	142	238	16	3	220	494	263
Broward	206	252	465	224	67	151	23	0	0	45	110	12
Calhoun	22	32	5	0	10	12	49	0	0	4	177	12
Charlotte	30	164	38	0	37	165	270	1	0	14	3	73
Citrus	2	1	1	0	6	27	35	0	0	75	568	66
Clay	47	136	28	0	32	133	36	0	0	49	90	91
Collier	70	485	128	151	11	120	26	0	0	7	9	6
Columbia	19	25	18	0	17	18	20	0	0	179	2594	17
Dade	220	1471	75	5989	17	83	103	0	0	0	0	0
DeSoto	25	123	35	0	20	16	65	0	0	44	139	114
Dixie	14	25	11	0	12	15	1	0	0	26	46	5
Duval	14	25	7	1992	8	21	1	0	0	469	1836	771
Escambia	534	1295	1502	74	277	1349	1139	99	2	33	150	62
Flagler	3	0	3	0	22	21	31	0	0	29	8	105
Franklin	29	86	48	0	29	46	88	2	0	220	1002	761
Gadsden	51	234	28	0	0	13	11	43	1	97	117	579
Gilchrist	11	19	13	0	8	23	40	7	0	15	13	27
Glades	4	2	5	0	16	59	76	0	0	62	78	272
Gulf	32	83	57	0	17	23	67	1	0	59	78	179
Hamilton	8	13	12	0	5	2	24	0	0	22	63	15
Hardee	25	42	17	0	31	96	149	72	1	40	98	121
Hendry	6	18	14	0	2	2	0	0	0	4	2	2
Hernando	6	11	0	0	21	45	36	4	0	14	26	6
Highlands	31	179	23	1	772	1865	7038	31	498	870	2408	1034
Hillsborough	778	1084	3615	33	74	11	429	18	55	26	42	92
Holmes	36	29	43	2	35	187	34	5	0	16	48	10
Indian River	16	80	22	0	28	53	197	0	0	69	60	279
Jackson	50	201	22	1	39	43	119	0	0	21	44	13
Jefferson	12	31	1	0	8	8	60	0	0	19	18	7
Lafayette	3	2	2	0	43	112	31	0	0	46	89	39
Lake	52	90	39	0	7	8	209	2	4	124	813	87
Lee	20	38	2	0	22	15	32	19	0	82	54	255
Leon	107	29	170	7	15	5	57	0	0	228	589	997
Levy	5	13	3	0	5	5	153	23	48	33	22	38
Liberty	11	64	10	0	15	23	515	28	77	100	368	128
Madison	28	42	28	0	20	71	9	0	4	26	112	9
Manatee	48	176	14	17	9	20	31	0	0	2	0	6
Marion	76	129	2	0	50	99	66	4	2860	76	167	45
Martin	25	42	13	0	13	32	15	0	1	18	34	9

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	H. CHRONIC DISEASE (Continued)			J. MENTAL HEALTH						
	Other Chronic Diseases			Admissions To Service			Field Visits		Office Visits	
	Admission to Service	Field Visits	Office Visits	Children	State Hospital Patients	Other Adults	With Patients	About Patients	With Patients	About Patients
	13	14	15	1	2	3	4	5	6	7
TOTAL 1962	9383	28057	9425	6383	4775	3999	12882	18407	23236	27038
Alachua	103	412	128	469	157	179	1068	3990	1268	1806
Baker	11	2	15	2	13	5	11	13	28	7
Bay	221	821	207	3	74	10	338	133	20	26
Bradford	91	222	206	3	24	9	69	37	17	9
Brevard	286	967	364	71	100	66	381	644	84	377
Broward	223	660	23	224	19	238	102	57	2443	1585
Calhoun	32	61	43	26	34	12	44	122	25	49
Charlotte	97	176	53	74	3	9	82	149	25	134
Citrus	3	2	16	18	34	9	55	123	34	105
Clay	194	623	175	107	24	36	218	243	61	162
Collier	80	350	95	261	28	103	119	190	869	849
Columbia	43	59	43	0	36	6	49	11	33	1
Dade	51	330	17	1598	410	314	1335	2013	5200	5211
DeSoto	102	134	130	43	5	4	11	38	48	51
Dixie	102	170	512	6	3	3	39	24	5	9
Duval	27	29	10	10	156	36	265	270	28	24
Escambia	508	3774	31	9	184	188	856	830	34	24
Flagler	2	19	0	3	4	0	10	2	20	3
Franklin	31	4	29	23	35	8	74	175	17	17
Gadsden	147	492	122	21	53	21	128	151	80	55
Gilchrist	100	189	474	1	2	1	4	1	4	2
Glades	8	7	6	30	0	0	3	27	25	18
Gulf	21	107	80	27	13	2	86	163	13	8
Hamilton	173	16	628	0	5	1	4	3	8	3
Hardee	38	98	10	38	5	13	15	26	92	56
Hendry	12	29	17	44	5	15	29	68	55	83
Hernando	16	28	0	15	21	0	16	73	4	30
Highlands	49	99	25	9	60	69	154	35	87	27
Hillsborough	805	1860	229	829	637	278	895	831	1906	3141
Holmes	72	47	90	24	11	7	16	17	47	28
Indian River	62	196	25	29	19	32	148	163	88	50
Jackson	139	89	166	53	44	25	182	458	63	85
Jefferson	12	13	5	4	19	3	13	19	16	9
Lafayette	11	46	0	1	0	4	12	64	25	41
Lake	109	184	69	25	30	11	60	64	102	432
Lee	95	106	232	44	77	58	112	189	2731	1042
Leon	64	623	21	275	120	414	272	217	8	49
Levy	20	34	19	6	32	2	55	91	1	1
Liberty	14	20	2	2	3	0	4	5	1	0
Madison	58	137	43	1	14	6	53	38	24	32
Manatee	27	114	8	25	143	71	295	517	110	181
Marion	102	318	13	40	314	122	279	293	94	386
Martin	18	33	6	56	9	19	13	36	69	251
Monroe	200	441	93	38	71	143	293	68	48	18
Nassau	34	76	30	22	10	26	108	155	20	39
Okaloosa	65	187	37	89	22	14	155	297	75	111
Okeechobee	36	51	18	37	5	3	1	0	34	128
Orange	343	468	52	671	173	68	434	390	738	1991
Osceola	22	21	23	6	0	12	25	20	26	19
Palm Beach	319	1716	198	60	630	252	952	1020	1565	952
Pasco	108	181	147	7	27	9	73	79	19	37
Pinellas	2738	6202	3546	45	298	332	1187	1085	139	807
Polk	402	977	359	378	288	150	600	792	1444	1822
Putnam	17	77	9	44	22	27	89	109	92	49
St. Johns	1	1	0	4	20	5	34	19	41	24
St. Lucie	31	85	69	166	30	126	9	43	1040	1235
Santa Rosa	17	20	21	13	36	18	70	91	54	50
Sarasota	166	853	5	35	43	351	626	464	953	2101
Seminole	23	57	32	60	21	33	87	342	77	420
Sumter	56	72	71	10	16	0	13	45	54	61
Suwannee	73	214	186	16	14	22	61	42	47	26
Taylor	30	143	21	1	10	2	8	6	31	6
Union	11	0	16	2	3	2	6	9	6	0
Volusia	216	2383	30	100	99	59	223	295	779	543
Wakulla	28	31	7	8	10	14	43	113	22	21
Walton	59	62	50	8	27	3	40	26	48	26
Washington	9	39	18	0	3	0	6	2	5	3

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	K. MISCELLANEOUS							M. NURSING HOMES	
	Admissions to Morbidity Service	Field Visits	Office Visits	General Medical Examinations	Health Cards Issued	Vital Statistics Visits	Civil Defense Visits and Conf.	Accident Visits, incl. Poisoning	Nursing Homes Admitted to Service
	1	2	3	4	5	6	7	8	1
	1	2	3	4	5	6	7	8	2
TOTAL 1962	9460	20876	14112	173060	215078	2295	1438	2824	401
Alachua	419	443	390	319	3622	5	9	139	2
Baker	62	170	199	28	88	0	7	0	0
Bay	36	95	7	0	2262	60	6	41	2
Bradford	75	180	112	44	234	109	17	0	1
Brevard	450	686	262	20	3092	78	58	0	10
Broward	221	503	29	734	21476	30	1	114	19
Calhoun	99	16	191	25	204	11	9	1	1
Charlotte	47	403	356	0	886	8	4	1	1
Citrus	23	33	87	54	566	5	4	0	0
Clay	138	259	61	36	384	90	16	1	1
Collier	123	289	138	67	900	9	8	3	0
Columbia	243	295	300	60	313	13	19	0	0
Dade	59	247	412	164224	21635	42	23	475	46
DeSoto	19	55	5	4	453	21	0	0	0
Dixie	58	43	58	7	301	69	10	2	0
Duval	34	30	33	4	5685	2	0	636	40
Escambia	187	647	243	1193	11523	13	143	189	8
Flagler	65	244	327	124	196	34	3	0	0
Franklin	47	43	22	16	794	7	0	0	0
Gadsden	133	455	423	33	852	671	2	0	0
Gilchrist	263	232	855	36	103	1	0	0	0
Glades	116	158	348	33	62	215	20	2	0
Gulf	37	40	66	3	326	215	5	0	3
Hamilton	126	2	177	70	349	1	8	0	1
Hardee	23	33	13	0	430	11	8	0	0
Hendry	138	291	539	12	457	27	0	0	3
Hernando	6	12	3	242	511	0	1	0	0
Highlands	31	22	19	72	555	10	8	0	0
Hillsborough	644	3282	129	664	42227	4	7	319	37
Holmes	35	6	32	44	327	4	27	0	2
Indian River	27	141	20	54	944	2	0	1	3
Jackson	87	69	65	42	695	63	48	0	0
Jefferson	47	111	23	34	253	15	0	0	1
Lafayette	39	154	65	1	17	13	0	0	0
Lake	30	43	12	15	947	17	0	0	6
Lee	82	71	107	199	3584	3	1	23	4
Leon	283	600	282	100	3118	10	1	0	2
Levy	28	26	146	163	627	3	31	3	2
Liberty	64	177	198	59	110	1	0	0	0
Madison	39	67	40	11	166	16	32	0	0
Manatee	165	612	393	210	3639	4	3	61	10
Marion	3	18	3	99	2248	198	13	11	2
Martin	11	42	20	0	0	12	3	0	0
Monroe	300	353	224	50	1369	24	38	0	2
Nassau	119	151	69	19	621	48	11	4	0
Okaloosa	151	1001	1070	167	1829	25	0	0	1
Okeechobee	4	8	1	0	198	0	3	0	1
Orange	130	224	63	602	3808	18	42	221	25
Osceola	8	18	16	69	774	1	9	0	8
Palm Beach	304	1082	366	338	14533	39	46	350	18
Pasco	86	117	53	12	2133	5	4	0	10
Pinellas	916	1848	704	406	30575	1	550	65	41
Polk	1117	699	1637	29	7430	85	44	63	25
Putnam	395	318	727	262	1035	2	3	0	6
St. Johns	54	25	46	7	1066	0	17	0	4
St. Lucie	0	0	0	0	1006	6	34	2	0
Santa Rosa	112	52	284	238	493	1	20	84	10
Sarasota	159	966	2	0	2382	4	2	0	8
Seminole	25	59	20	0	632	31	2	0	1
Sumter	46	47	56	3	432	0	9	0	1
Suwannee	139	263	925	33	422	0	3	0	14
Taylor	115	63	149	44	458	7	14	0	0
Union	120	32	176	55	111	14	0	2	0
Volusia	186	2443	213	1443	5682	51	0	10	21
Wakulla	19	15	6	6	302	12	0	0	0
Walton	82	10	85	81	379	5	26	0	0
Washington	11	37	10	41	247	8	15	0	1

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	P. SANITATION											
	WATER						SEWAGE					
	Public Water Systems		Private Water Plants		Bottled Water Plants		Public Sewerage Systems		Private Sewerage Systems		New Specification Septic Tanks Installed	
	1	2	3	4	5	6						
Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	
TOTAL 1962	6896	17697	7720	13223	56	318	1219	8274	543	2742	25650	38352
Alachua	176	373	192	358	4	6	37	106	27	32	365	487
Baker	21	60	8	9	0	0	2	8	0	0	33	97
Bay	96	349	171	282	0	0	31	162	5	8	264	553
Bradford	1	10	0	0	0	0	1	11	0	0	106	109
Brevard	114	334	120	265	1	1	58	454	12	26	3076	4076
Broward	152	738	319	550	3	7	51	783	120	903	2405	3225
Calhoun	5	52	2	3	0	0	0	0	0	0	51	103
Charlotte	3	50	34	628	5	12	6	16	3	17	203	229
Citrus	23	74	107	122	3	3	8	27	13	21	10	22
Clay	15	146	5	22	0	0	8	23	4	6	49	106
Collier	21	241	34	111	0	0	8	91	4	37	103	276
Columbia	11	26	3	5	0	0	3	14	1	4	178	474
Dade	151	1301	628	1252	4	61	49	454	2	4	1	1
DeSoto	8	117	37	44	0	0	1	6	5	9	4	4
Dixie	23	63	9	11	0	0	5	11	0	0	1	1
Duval	3729	4057	390	493	1	2	98	553	68	239	459	677
Escambia	233	589	531	592	0	0	40	569	0	0	1284	1472
Flagler	0	0	2	3	0	0	2	2	2	3	46	75
Franklin	6	95	5	53	0	0	6	73	2	8	2	9
Gadsden	14	94	38	46	1	1	3	21	16	17	80	132
Gilchrist	0	0	1	1	0	0	1	1	6	6	19	134
Glades	3	45	1	19	0	0	1	4	2	2	9	14
Gulf	18	86	47	91	0	0	5	9	1	1	49	67
Hamilton	8	21	5	20	0	0	0	0	0	0	19	52
Hardee	16	72	61	134	0	0	1	17	0	0	62	140
Hendry	3	104	1	12	0	0	1	48	1	2	81	113
Hernando	12	20	19	21	0	0	9	10	6	7	6	8
Highlands	30	44	70	82	0	0	5	13	5	7	473	596
Hillsborough	81	527	780	1361	4	18	42	773	4	57	1199	1461
Holmes	1	3	6	11	0	0	1	2	1	1	25	57
Indian River	3	3	2	2	1	16	7	24	4	8	44	67
Jackson	9	68	5	10	0	0	4	40	1	1	33	143
Jefferson	17	33	28	34	0	0	2	7	0	0	2	4
Lafayette	3	13	1	1	0	0	0	0	0	0	7	7
Lake	21	35	53	94	0	0	1	2	0	0	703	1057
Lee	11	50	6	6	1	2	17	158	1	2	475	480
Leon	48	177	25	33	0	0	1	4	2	6	279	417
Levy	27	57	30	44	0	0	1	2	0	0	75	111
Liberty	31	352	5	8	0	0	4	5	0	0	4	5
Madison	4	46	21	38	0	0	1	8	0	0	15	39
Manatee	241	632	868	975	2	6	50	194	1	1	647	1223
Marion	49	111	160	240	0	0	3	4	15	31	293	426
Martin	69	231	93	152	1	3	7	124	2	6	445	694
Monroe	5	14	10	29	0	0	11	36	7	42	109	262
Nassau	3	4	6	17	1	1	1	4	2	4	64	185
Okaloosa	10	193	31	104	0	0	8	95	24	36	227	328
Okeechobee	25	85	20	35	0	0	2	34	0	0	116	166
Orange	395	1838	4	112	3	48	351	1001	7	67	1600	2150
Osceola	5	56	1	7	1	17	1	32	2	9	104	137
Palm Beach	193	678	699	838	5	15	9	172	20	59	2943	3580
Pasco	12	18	12	26	3	3	12	18	1	1	101	194
Pinellas	38	1179	83	188	6	40	115	1168	90	897	1747	2596
Polk	254	549	270	395	0	0	46	247	19	66	1465	2246
Putnam	36	42	22	28	0	0	1	2	0	0	194	298
St. Johns	5	12	19	60	2	2	9	89	16	47	34	103
St. Lucie	13	46	68	151	1	4	4	26	0	0	285	669
Santa Rosa	19	31	11	34	0	0	10	42	6	7	68	127
Sarasota	64	466	1323	2642	1	6	21	261	4	21	1165	3088
Seminole	40	219	78	96	0	0	23	178	5	9	461	475
Sumter	11	188	16	37	0	0	1	4	0	0	41	70
Suwannee	1	3	3	4	0	0	1	6	0	0	18	30
Taylor	58	112	70	95	0	0	1	2	0	0	44	48
Union	0	0	0	0	0	0	1	2	2	2	110	185
Volusia	130	318	35	65	2	44	6	13	1	2	1039	1882
Wakulla	36	55	14	20	0	0	3	5	1	1	2	4
Walton	32	34	1	1	0	0	1	2	0	0	27	47
Washington	4	58	1	1	0	0	2	2	0	0	22	39

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	P. SANITATION (Continued)											
	SEWAGE				MISCELLANEOUS							
	New Specifica- tion Privies Installed		Garbage Disposal Systems		Subdi- vision Analysis	Percola- tion and Soil Log Test	Pollution Survey		Bathing Areas Surveyed		Public Swimming Pools	
	7		8		9	10	11		12		13	
	Admitted	Visits	Admitted	Visits	Number	Number	Admitted	Visits	Admitted	Visits	Admitted	Visits
TOTAL 1962	222	487	448	4386	438	14426	288	2962	209	1000	2383	16732
Alachua	0	0	2	48	64	833	15	20	8	9	15	127
Baker	0	5	1	1	0	0	0	0	0	0	1	4
Bay	0	0	7	7	11	272	2	10	0	0	40	390
Bradford	0	0	6	63	0	18	0	0	3	3	3	125
Brevard	2	2	8	114	9	1849	5	35	11	25	21	125
Broward	0	0	15	25	22	26	32	163	5	5	554	2974
Calhoun	0	0	1	5	0	0	0	0	0	0	1	1
Charlotte	0	0	1	13	0	10	4	150	2	4	4	52
Citrus	0	0	5	15	0	2	2	5	2	2	2	5
Clay	1	1	4	54	0	147	1	1	1	1	5	13
Collier	17	51	2	27	0	33	2	29	0	0	21	214
Columbia	3	4	1	234	3	39	1	1	1	1	4	10
Dade	0	0	1	1	1	2	64	127	27	265	691	5929
DeSoto	0	0	5	9	0	14	0	0	0	0	0	0
Dixie	0	0	1	6	0	15	0	0	0	0	4	11
Duval	2	4	41	482	13	1881	1	21	1	6	30	112
Escambia	8	85	5	1222	8	80	12	106	6	60	3	5
Flagler	0	0	0	0	2	69	5	6	2	3	1	13
Franklin	3	3	5	85	0	7	0	0	0	0	4	37
Gadsden	90	126	8	138	1	0	1	21	2	10	0	0
Gilchrist	2	4	1	26	0	10	0	0	0	0	0	0
Glades	1	1	1	14	1	0	0	0	0	0	0	0
Gulf	0	0	0	0	0	1	0	0	0	0	1	3
Hamilton	19	23	1	1	0	2	0	0	0	0	2	2
Hardee	0	0	2	16	0	1	1	2	0	0	2	23
Hendry	0	0	0	7	0	2	0	0	0	0	2	2
Hernando	0	0	2	7	0	25	3	9	0	0	19	28
Highlands	0	0	4	10	9	0	2	3	0	0	56	60
Hillsborough	2	27	75	248	27	209	5	981	3	56	0	771
Holmes	0	0	1	2	0	36	0	0	0	0	0	0
Indian River	2	2	1	6	3	56	1	1	3	3	15	119
Jackson	0	4	1	1	1	116	2	10	2	7	1	15
Jefferson	2	2	1	1	0	1	2	2	0	0	0	0
Lafayette	2	1	1	8	0	29	0	0	0	0	0	0
Lake	1	1	0	0	0	159	3	4	0	0	4	6
Lee	0	0	0	0	31	1	3	25	0	0	12	31
Leon	2	3	4	17	0	18	12	12	10	206	20	121
Levy	1	2	6	13	0	1	0	0	0	0	0	0
Liberty	0	0	5	23	2	17	0	0	0	0	0	0
Madison	0	0	0	0	1	0	0	0	0	0	0	0
Manatee	1	1	1	1	0	2	0	0	0	0	2	6
Maratee	4	8	2	4	12	163	3	41	9	30	19	161
Marion	7	9	89	223	16	369	0	0	1	3	15	67
Martin	1	1	4	19	0	363	6	48	1	1	12	52
Monroe	0	0	8	66	2	0	20	526	8	39	38	78
Nassau	2	9	7	23	0	7	1	1	1	5	9	54
Okaloosa	1	1	1	28	2	267	3	8	1	1	2	10
Okeechobee	0	0	1	2	0	62	0	0	0	0	1	4
Orange	1	4	4	352	45	2214	4	123	2	34	69	518
Osceola	0	0	1	51	6	21	1	1	1	1	1	4
Palm Beach	0	0	5	41	11	32	3	37	3	4	203	2053
Pasco	1	1	4	1	1	38	1	5	0	0	3	14
Pinellas	16	21	12	266	5	2850	7	140	7	72	220	1255
Polk	1	5	10	50	22	637	23	78	37	72	48	172
Putnam	0	0	12	89	2	56	0	0	0			
St. Johns	9	41	17	33	11	43	3	14	1	3	24	72
St. Lucie	0	0	5	27	1	194	2	22	1	11	11	81
Santa Rosa	0	0	0	0	0	0	3	4	6	6	1	1
Sarasota	7	17	4	12	74	527	10	100	8	12	28	166
Seminole	0	0	8	57	12	377	4	21	24	27	7	19
Sumter	2	4	2	2	0	40	0	0	0	0	2	25
Suwannee	4	4	5	0	0	32	4	11	0	0	13	26
Taylor	1	1	5	30	0	1	0	0	0	0	0	0
Union	1	1	0	0	1	0	0	0	0	0	0	0
Volusia	5	9	16	41	5	90	7	31	4	4	99	693
Wakulla	0	0	1	1	0	3	1	0	0	0	5	5
Walton	0	0	1	4	1	56	1	1	1	1	0	0
Washington	0	0	1	28	0	0	0	0	0	0	2	3

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	P. SANITATION (Continued)											
	MISCELLANEOUS											
	Schools		Mobile Home Parks		Camps		Tourist Courts or Motels		Child Care Centers		Complaints Investigated	
	14	15	16	17	18	19	20	21	22	23	24	25
	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits
TOTAL 1962	1611	4536	1634	7583	560	5366	557	1533	1553	5190	32635	68889
Alachua	9	53	31	79	26	74	98	119	12	86	303	728
Baker	5	34	4	4	0	0	1	1	0	0	28	50
Bay	30	31	53	109	1	1	21	51	0	0	122	173
Bradford	7	8	2	4	7	14	3	4	1	1	29	56
Brevard	17	54	85	443	2	10	5	14	15	56	973	1616
Broward	128	239	102	338	20	173	6	23	173	719	2429	4443
Calhoun	5	53	1	1	0	0	0	0	0	0	8	12
Charlotte	3	37	1	53	1	7	2	30	0	0	13	148
Citrus	4	11	5	7	0	0	7	10	0	0	31	36
Clay	12	80	12	120	7	60	7	47	1	7	23	40
Collier	4	5	9	22	50	239	5	11	3	4	73	163
Columbia	14	21	2	4	2	8	2	2	1	3	27	80
Dade	260	426	139	385	68	3178	0	0	210	332	7791	18712
DeSoto	7	56	1	2	0	0	0	9	0	0	42	45
Dixie	1	16	0	0	1	2	2	2	0	0	10	25
Duval	91	122	27	90	5	34	109	240	344	1545	3942	5386
Escambia	92	95	78	199	0	0	11	29	30	87	3219	5386
Flagler	1	2	1	1	5	24	0	0	0	0	8	14
Franklin	4	27	7	28	4	10	0	0	0	0	25	97
Gadsden	15	105	4	18	3	19	9	40	1	1	52	83
Gilchrist	0	0	0	0	0	0	0	0	1	1	1	4
Glades	4	10	1	6	9	21	0	0	1	2	13	20
Gulf	7	51	7	13	0	0	9	17	0	0	24	56
Hamilton	0	0	1	4	0	0	0	0	0	0	19	44
Hardee	2	17	4	10	10	32	2	2	0	0	14	55
Hendry	5	17	3	30	9	58	5	36	2	2	19	74
Hernando	2	2	4	5	3	5	1	1	0	0	50	72
Highlands	6	10	40	90	27	40	22	35	0	0	75	111
Hillsborough	24	422	116	868	13	234	3	26	184	1964	1933	5750
Holmes	9	58	0	0	0	0	0	0	0	0	11	15
Indian River	1	34	9	27	3	11	2	7	1	2	118	249
Jackson	3	24	3	37	1	2	1	3	0	0	12	42
Jefferson	8	19	2	2	0	0	0	0	1	1	24	45
Lafayette	1	1	0	0	0	0	3	0	0	0	7	7
Lake	21	32	11	17	8	25	7	11	1	1	78	118
Lee	30	88	27	41	1	3	1	3	2	2	102	198
Leon	29	43	35	94	23	55	42	46	42	119	268	527
Liberty	9	26	4	5	5	8	9	9	0	0	25	26
Madison	6	22	0	0	2	6	0	0	0	0	0	0
Manatee	8	10	0	0	2	3	2	2	0	0	15	20
Marion	3	4	51	101	11	46	12	22	23	44	376	578
Martin	44	109	28	86	14	47	44	121	13	40	387	838
Monroe	1	13	14	67	1	2	4	10	0	0	91	246
Nassau	9	37	58	132	6	9	8	18	6	11	158	261
Okaloosa	9	44	5	17	1	6	3	14	0	0	54	98
Okeechobee	4	8	16	83	0	10	5	12	4	9	125	155
Orange	168	564	88	452	4	55	42	347	218	416	1546	4046
Osceola	5	41	9	63	1	2	13	24	0	0	58	83
Palm Beach	101	211	51	142	98	309	3	16	157	548	2328	3793
Pasco	2	2	28	60	11	87	6	12	0	0	54	95
Pinellas	147	530	234	2531	8	165	3	4	96	132	5332	10550
Polk	78	146	38	181	32	172	7	38	14	24	862	1466
Putnam	1	1	2	3	10	19	10	12	1	1	81	138
St. Johns	20	86	10	16	12	12	4	6	9	10	42	84
St. Lucie	8	8	28	177	6	35	0	0	11	11	134	253
Santa Rosa	5	16	4	5	0	0	0	0	0	0	46	69
Sarasota	22	55	63	122	2	10	13	23	34	125	633	1179
Seminole	18	81	4	15	7	16	3	4	21	32	248	447
Sumter	8	28	4	9	2	4	8	32	0	0	24	34
Suwannee	11	11	4	13	4	4	10	26	2	13	13	29
Taylor	5	28	7	10	0	0	15	57	0	0	20	28
Volusia	2	10	0	0	0	0	0	0	0	0	1	3
Wakulla	18	30	52	127	9	20	5	6	17	29	396	1023
Walton	14	12	0	0	0	0	0	0	0	0	17	36
Washington	6	23	0	0	0	0	2	12	0	0	13	22

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	P. SANITATION (Continued)												
	MISCELLANEOUS (Continued)					PROTECTION OF FOOD AND MILK							
	Nuisances Corrected	Plumbing		Rabies— Animal Bites		Eating and Drinking Establishments		Food Pro- cessing Plants		Abattoirs		Shellfish and Crustacea	
	20	21		22		23		24		25		26	
	Number	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits	Admitted	Visits
TOTAL 1962	23394	2179	6482	17902	54438	20817	105685	1066	4170	130	781	194	1535
Alachua	438	6	14	417	972	344	1177	23	81	6	12	1	2
Baker	10	1	36	21	78	12	77	0	0	0	0	0	0
Bay	32	0	0	54	132	230	849	3	0	0	0	0	0
Bradford	38	1	1	56	116	42	355	0	0	0	0	0	0
Brevard	850	2	4	509	1226	428	1986	52	135	2	2	1	2
Broward	1662	168	389	1528	3552	1640	4164	34	271	0	0	0	0
Calhoun	10	0	0	2	52	14	257	4	21	0	0	0	84
Charlotte	36	1	4	8	10	41	65	1	1	0	0	5	6
Citrus	18	4	0	42	178	82	621	2	3	2	4	0	0
Clay	35	0	0	45	109	94	233	1	15	0	0	0	0
Collier	51	0	3	59	245	120	594	1	6	1	5	0	0
Columbia	15	1	12	59	245	120	594	1	6	1	5	0	7
Dade	3941	0	0	4653	15998	4818	25085	305	730	38	419	2	7
DeSoto	11	0	0	18	42	42	182	9	13	6	8	0	0
Dixie	8	0	0	0	2	29	98	0	0	0	0	0	38
Duval	1333	0	0	1128	1128	685	1585	21	133	4	15	6	113
Escambia	2867	1959	5854	984	3080	685	3621	27	133	4	15	6	113
Flagler	15	0	0	15	31	64	203	0	0	0	0	1	1
Franklin	31	0	1	5	33	47	159	6	27	0	0	5	7
Gadsden	170	0	0	16	43	93	526	2	8	2	11	2	33
Gilchrist	5	0	0	1	8	6	121	0	0	0	0	0	0
Glades	7	0	0	1	16	52	135	0	0	0	0	0	0
Gulf	18	0	0	18	38	59	445	1	11	0	0	0	26
Hamilton	14	0	0	15	30	37	97	0	0	1	1	0	0
Hardee	13	1	1	34	55	27	82	4	13	0	4	0	0
Hendry	47	0	0	13	40	49	231	0	6	2	4	0	0
Hernando	37	1	1	76	104	17	26	4	6	2	4	0	0
Highlands	28	0	0	1	76	184	306	1	1	4	4	0	0
Hillsborough	2210	1	14	2536	14026	1963	20332	87	505	10	92	14	93
Holmes	14	0	0	15	23	55	295	0	0	0	0	0	0
Indian River	45	2	2	32	100	113	670	6	15	0	0	1	22
Jackson	5	0	12	14	49	118	672	3	9	3	12	0	0
Jefferson	10	0	0	20	34	35	68	1	2	2	4	0	0
Lafayette	4	0	0	1	10	33	0	0	0	0	0	0	0
Lake	38	0	0	31	55	197	455	4	8	0	0	6	75
Lee	72	0	0	127	129	308	803	13	52	0	0	0	0
Leon	383	2	10	192	843	292	1882	4	15	4	40	15	67
Levy	19	2	3	40	82	74	84	2	4	0	0	0	0
Liberty	0	0	0	3	4	16	94	0	0	0	0	0	0
Madison	6	1	1	14	33	37	90	0	0	2	4	0	0
Manatee	304	6	7	182	280	295	620	44	216	1	4	2	8
Marion	417	0	16	214	371	237	786	11	36	1	18	0	0
Martin	55	0	0	20	43	112	569	7	26	0	5	1	2
Monroe	171	4	4	133	258	180	423	2	4	2	5	4	29
Nassau	20	0	1	23	47	56	446	1	1	2	3	0	0
Okaloosa	66	1	2	245	254	100	366	1	4	2	4	0	0
Okechobee	3	0	0	26	51	60	387	2	4	1	2	0	0
Orange	1108	2	2	1245	2679	460	2409	21	248	1	9	1	4
Osceola	16	4	6	46	81	56	216	4	79	1	1	1	4
Palm Beach	884	1	12	332	321	1109	2907	34	71	0	1	1	4
Pasco	43	2	3	29	64	240	705	141	28	2	2	1	1
Pinellas	3940	0	22	535	1522	1848	12032	63	836	3	9	11	17
Polk	453	2	34	799	2178	687	4771	63	269	2	29	2	7
Putnam	31	0	0	26	47	117	280	1	4	5	5	1	4
St. Johns	51	0	0	16	44	99	378	7	12	4	7	20	7
St. Lucie	140	0	0	117	319	181	1560	10	64	1	2	1	10
Santa Rosa	62	0	0	97	134	81	153	0	0	0	0	9	10
Sarasota	739	1	1	414	1582	393	1353	68	162	1	3	10	9
Seminole	110	0	1	192	306	166	615	16	77	1	4	0	0
Sumter	9	0	0	26	102	52	134	1	41	1	7	0	0
Suwannee	8	0	0	8	15	78	661	0	0	1	4	0	1
Taylor	10	0	0	46	93	63	158	0	0	0	0	0	0
Union	4	0	0	6	12	7	15	0	0	0	0	3	1
Volusia	179	1	6	298	832	718	4137	28	149	3	0	12	8
Wakulla	3	0	0	7	16	77	102	3	5	0	0	4	8
Walton	6	0	0	20	37	97	217	2	0	0	4	2	2
Washington	16	0	0	32	41	56	256	0	0	1	4	0	0

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	P. SANITATION (Continued)									
	PROTECTION OF FOOD AND MILK (Continued)									
	Grocery and Meat Markets		Other Food Establishments		Food-Handlers Trained	Dairy Farms		Milk and Milk Products Plants		Cows Banged Tested
	27	28	29	30	31	32	33	34	35	36
	Admitted	Visits	Admitted	Visits	Number	Admitted	Visits	Admitted	Visits	Number
TOTAL 1962	6325	33089	2043	10853	3596	791	10404	822	7807	19491
Alachua	137	412	4	9	4	21	66	3	13	0
Baker	15	40	16	31	4	4	26	0	0	0
Bay	63	159	4	32	0	3	33	2	18	283
Bradford	33	255	2	3	0	3	35	3	15	44
Brevard	54	404	11	26	0	3	32	7	65	0
Broward	376	1100	20	47	0	3	25	11	89	122
Calhoun	11	16	0	0	0	11	212	0	0	0
Charlotte	8	67	1	5	0	0	0	1	12	0
Citrus	2	2	0	0	0	0	0	0	0	0
Clay	36	454	0	0	0	7	82	2	18	0
Collier	17	33	1	2	0	0	0	0	0	0
Columbia	59	169	0	0	0	1	3	2	23	0
Dade	1498	6868	924	5328	1693	97	943	352	3144	1335
DeSoto	22	104	10	16	0	2	49	0	0	0
Dixie	3	4	0	0	0	0	0	0	0	0
Duval	364	868	52	92	0	1	9	1	8	0
Escambia	263	1191	49	184	387	70	985	10	55	3831
Flagler	8	26	0	0	0	1	5	0	0	0
Franklin	5	5	0	0	0	3	3	0	0	0
Gadsden	32	41	1	1	0	3	79	1	14	289
Gilchrist	14	2	0	0	0	0	0	0	0	0
Glades	61	32	0	0	0	5	92	0	0	0
Gulf	8	403	7	21	0	1	15	0	0	78
Hamilton	2	3	1	1	0	3	40	0	0	187
Hardee	10	52	0	0	0	7	51	0	0	0
Hernando	1	1	0	0	0	1	1	0	0	0
Highlands	30	55	1	2	0	8	40	6	10	3386
Hillsborough	857	8946	464	3757	51	88	2293	15	1053	1306
Holmes	23	149	0	0	0	16	223	0	0	761
Indian River	6	93	0	0	0	5	48	1	29	0
Jackson	0	0	0	0	0	24	358	3	27	144
Jefferson	26	42	0	0	0	9	96	2	13	134
Lafayette	4	5	1	1	0	20	385	0	0	1503
Lake	8	10	0	0	0	4	7	0	0	0
Lee	63	109	28	31	0	8	65	1	55	0
Leon	174	826	25	28	0	13	170	7	163	2099
Levy	14	14	1	1	0	1	1	1	2	9
Liberty	0	0	0	0	0	0	0	0	0	0
Madison	0	0	0	0	0	7	31	3	6	490
Manatee	61	118	4	5	0	26	347	6	13	7277
Marion	59	128	8	18	3	13	327	5	46	1160
Martin	36	163	3	4	0	9	100	5	21	3683
Monroe	22	48	1	6	0	0	0	0	11	0
Nassau	23	69	0	0	0	1	1	0	0	0
Okaloosa	1	1	0	0	0	2	16	1	25	73
Okeechobee	29	181	0	0	0	24	309	2	22	18000
Orange	23	501	253	521	278	25	215	37	391	0
Osceola	9	10	0	0	0	8	96	0	0	0
Palm Beach	243	639	37	67	0	23	167	31	884	17629
Pasco	3	4	1	1	1	21	232	1	2	0
Pinellas	614	3357	34	312	109	12	216	234	1137	82
Polk	317	2264	33	214	99	46	602	2	28	0
Putnam	37	79	0	0	0	7	31	0	0	0
St. Johns	5	12	1	3	0	10	21	2	13	0
St. Lucie	65	629	3	3	26	7	46	4	14	1767
Santa Rosa	0	0	1	1	0	10	116	0	0	0
Sarasota	99	204	16	42	25	5	68	3	21	98
Seminole	59	228	1	2	0	8	79	1	1	224
Sumter	15	57	1	5	0	9	110	0	0	162
Suwannee	0	0	0	0	0	6	71	1	5	22
Taylor	10	17	1	1	0	0	0	0	0	0
Union	10	15	0	0	0	2	8	0	0	0
Volusia	214	1142	17	24	920	41	414	42	337	0
Wakulla	2	3	0	0	0	0	0	0	0	0
Walton	32	65	4	5	0	11	45	5	8	660
Washington	28	187	1	1	0	10	264	0	0	840

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1962

COUNTY	P. SANITATION (Continued)										V. HEALTH EDUCATION										X. LAB.	
	Private Premises 35		Public Premises 36		Meetings Attended Spectator 1	Meetings Attended Participant 2	Talks Made 3	Conferences 4	Programs Using Audio-Visual Aids 5	Radio and TV Programs, Participant 6	News Articles, Preparation and/or Publication 7	Exhibits Pre- pared and/or Set Up 8	Specimens Examined 1 - 22									
	Admitted	Visits	Admitted	Visits																		
TOTAL 1962	30730	92689	12714	37879	10096	8771	7626	34083	2939	311	1954	681	669996									
Alachua	90	456	104	1040	226	180	129	779	166	5	30	4	12353									
Baker	87	110	6	19	24	23	18	45	0	25	0	8	9865									
Bay	259	419	16	27	84	61	122	296	14	10	2	1315										
Bradford	3	3	0	0	111	56	32	51	19	0	10	7	10521									
Brevard	20	94	26	293	162	111	54	4349	17	2	7	13	36362									
Broward	1448	2426	237	758	228	308	331	3299	170	10	68	1	1612									
Calhoun	4	12	3	18	34	29	4	29	17	1	62	24	4401									
Charlotte	18	87	5	235	117	210	87	1580	112	18	62	0	1254									
Citrus	102	157	6	6	38	40	9	67	45	0	15	15	1901									
Clay	14	139	18	103	84	120	61	503	16	5	21	0	3657									
Collier	6	19	27	73	158	125	30	21	1163	4	15	11	82136									
Columbia	27	263	8003	16628	1310	1346	956	1029	111	24	74	49	82136									
Dade	7646	14864	95	252	17	15	9	143	10	0	8	13	1728									
DeSoto	65	122	7	17	11	16	15	198	0	0	0	1	1657									
Dixie	6380	11572	256	1174	211	132	59	77	15	0	0	2	18488									
Duval	3315	4836	457	1207	323	222	145	289	186	0	1	34	26	36878								
Escambia	2	169	2	9	7	1	3	6	0	0	8	0	1222									
Flagler	42	131	24	96	34	27	12	66	11	0	7	0	2432									
Franklin	450	559	21	57	86	101	29	785	31	5	45	0	6095									
Gadsden	17	23	3	3	26	27	40	759	2	0	6	7	1541									
Gilchrist	48	800	5	48	50	21	2	26	0	0	11	9	1960									
Glades	127	188	41	103	38	48	17	363	6	0	18	4	2168									
Gulf	81	161	20	85	95	34	5	233	21	3	10	1	2374									
Hamilton	83	841	32	261	88	59	42	85	19	3	0	0	919									
Hardee	65	144	1	16	4	22	6	100	0	3	42	0	3131									
Hendry	73	132	26	134	57	22	620	823	66	29	138	51	125939									
Hernando	1114	15898	297	2812	916	909	620	823	66	8	13	5	4584									
Hillsborough	7	12	3	159	221	173	44	149	20	5	19	1	4053									
Holmes	86	670	26	159	112	101	60	143	15	0	3	4	6722									
Indian River	9	58	5	16	22	19	11	63	41	0	24	2	2342									
Jackson	28	68	5	17	30	13	1	20	1	0	0	0	470									
Jefferson	23	31	14	17	30	13	1	25	13	0	3	10	3574									
Lafayette	628	779	187	263	51	31	25	588	40	4	28	3	7001									
Lake	45	95	113	231	273	112	112	56	38	3	36	25	23644									
Lee	52	281	58	143	201	103	162	499	38	0	0	0	2164									
Leon	119	244	50	156	16	40	17	35	8	0	3	0	1740									
Levy	3	3	6	8	4	4	0	4	0	0	0	0	2168									
Liberty	5	5	6	8	67	26	26	134	3	1	4	6	11835									
Madison	247	312	41	74	273	121	188	230	64	0	116	12	7326									
Manatee	648	1010	189	375	217	122	82	156	30	41	0	0	1510									
Marion	610	791	36	178	30	69	48	113	6	2	82	4	4328									
Martin	161	247	62	122	135	117	259	723	41	2	58	39	2546									
Monroe	44	182	14	88	46	104	50	58	17	17	0	1	4962									
Nassau	39	106	49	518	31	50	5	158	0	0	0	1	1098									
Okeechobee	33	46	32	162	8	27	5	158	0	0	62	88	27948									
Orange	240	1137	209	1821	339	386	779	2543	221	10	14	4	2561									
Osceola	43	87	38	385	49	59	48	11	28	0	10	12	30654									
Palm Beach	490	817	276	620	910	471	338	3034	174	11	3	0	3648									
Pasco	52	147	3	20	15	9	2	43	63	349	52	234	59031									
Pinellas	2474	24824	502	4121	927	574	1116	1463	272	259	5	34	3	27399								
Folk	446	707	57	138	444	382	547	67	14	2	0	12	0	4233								
Putnam	4	18	1	17	56	30	8	12	248	3	0	6	3	3252								
St. Johns	7	62	20	187	46	31	12	24	59	7	1	7	1	3356								
St. Lucie	483	648	135	370	54	106	24	780	90	0	83	25	3910									
Santa Rosa	39	96	38	71	159	169	202	163	3312	53	13	224	8	2934								
Sarasota	924	1882	449	829	248	329	122	641	105	0	17	2	2225									
Seminole	400	1116	68	369	59	153	122	641	46	0	0	6	1	1009								
Sumter	136	335	12	24	22	39	15	134	21	0	8	1	1538									
Suwannee	40	73	8	10	21	56	33	11	87	21	0	6	1	7895								
Taylor	191	315	30	45	35	25	11	2	0	0	4	10	7	1095								
Union	203	453	11	19	10	19	296	67	203	60	4	46	7	7895								
Volusia	140	268	136	481	191	191	16	47	5	0	1	8	2	2284								
Wakulla	11	42	8	15	5	19	16	25	3	1	10	2	2	2933								
Walton	11	19	10	21	52	11	26	25	3	0	0	0	0	1912								
Washington	3	3	4	9	2	5	3	1	0	0	0	0	0	0								

BUREAU OF VITAL STATISTICS

EVERETT H. WILLIAMS, JR., M.S., Hyg.
Director

This bureau is responsible for the collection and preservation of the following records: birth, stillbirth, death, marriage, annulment of marriage, divorce, adoption and legal change of name. It is responsible for the issuance of certified copies of most of these vital records and for processing of various types of amendments to the records. The records have legal value in that they are accepted by courts as legal proof of the facts stated thereon. In addition to their legal value, these records have statistical value for public health agencies and others interested in demographic studies.

COLLECTION

Collection of records is one of the primary functions of the vital statistics system. The value of these records for both legal and statistical purposes is completely dependent upon the effectiveness of the collection system. The county health officers are registrars for their areas and are responsible for the collection of birth, stillbirth and death certificates. Particular emphasis has been placed upon promptness of filing birth and death records. Last year, 98.9 per cent of all births and 97.7 per cent of all deaths were registered at this bureau by the fifth of the following month. In each case this represents an improvement of one-tenth of one per cent over the preceding year. A total of 21 counties submitted 98 per cent or more of their birth records and 26 counties submitted 98 per cent of their death records within the prescribed time limit. Unfortunately, there are still a sizable number of counties which need considerable improvement in the timeliness of filing birth and death records. One measure of the relative efficiency between counties with regard to birth and death registration is the "Vital Statistics Scoreboard," which is published annually (Table 15). The top 10 units are to be congratulated on their superior performance. They are: Jacksonville-Duval, Dade, Citrus, Hillsborough, Martin, Volusia, Hernando, Seminole, Orange and Polk.

Last year, a total of 231,997 current certificates were registered with the bureau, an increase of 1.5 per cent over the preceding year.

CERTIFICATIONS

The issuance of certified photocopies and other certifications is one of the large volume jobs performed by the bureau. Last year, 122,149 requests for certifications were received and processed. This figure represents an increase of 1.9 per cent over the previous year. Birth and death certificates are confidential records and certified copies are not issued to persons who cannot demonstrate the proper interest in the record. For those persons who are not entitled to receive certi-

fied photocopies of birth records, a birth registration card can be issued showing the name, date of birth and place of birth. Last year, a total of 23,665 birth registration cards were issued. Table 8 shows comparative data for other types of certifications issued during the past two years.

AMENDMENTS

One of the most complex and troublesome functions of the bureau is the amendment of records. Many requests are received to have records corrected. In each case, the applicant must submit evidence to substantiate his request and bureau personnel must determine whether sufficient proof has been submitted to justify the correction. Every effort is made to correct minor errors as easily as possible while making sure that sufficient evidence is obtained for major corrections to maintain the legal validity of the record. A set of administrative regulations governing requirements for correction of records was passed by the State Board of Health (SBH) during the year.

DELAYED REGISTRATION OF BIRTHS

A "Delayed Birth Certificate" is one which is filed after the person's first birthday. An application for filing a delayed birth certificate must be accompanied by documents which verify the date of birth, place of birth and parentage. Requirements for documentary evidence must be sufficient to minimize the filing of fraudulent records and to make the record of sufficient value that it will be acceptable to other agencies and offices using these records as proof of birth. During 1962, administrative regulations governing evidentiary requirements for filing a delayed birth certificate were enacted by the SBH. Bureau personnel must explain these requirements for evidence in writing and orally, and must determine when sufficient proof has been submitted. Last year, a total of 3254 delayed birth certificates were filed. This is a decrease of 7.5 per cent under the total for the preceding year.

ADOPTIONS

In 1962 there were 4225 adoption decrees received from the courts for children who were born in Florida. This represents an 8.3 per cent increase over 1961. When an adoption decree is received for a person born in Florida a new birth certificate is substituted for the original certificate. The new certificate shows the new parents' names and does not disclose the fact of adoption. The original certificate is sealed and is only available upon receipt of a court order or upon receipt of a request from the registrant if he or she is of legal age. Adoption decrees received for persons born in other states are forwarded to the vital statistics office of the state of birth for similar

processing. A total of 1210 adoption reports were forwarded by this office to other states during the year 1962. This is an increase of 15.8 per cent over the preceding year.

COMMITTEE FOR DEMOGRAPHIC STUDIES

A State Committee for Demographic Studies sponsored by the SBH was organized in January. This was later officially approved as an Advisory Committee to the SBH.

Two meetings were held during the year. The following functions were approved: a clearing house for information on studies, reports and activities of members and their organizations in the broad area of Florida demography to include vital statistics, population characteristics, population estimates and projections, and the following areas as they relate to the preceding subjects: health, employment, labor force, economic development, public welfare, medical care, education, gerontology, urban and rural growth; a source of encouragement for research studies and the publication of reports on demographic topics; a forum for exchange of views by the members of the committee; a source of technical advice to public agencies on matters within the committee's competence; and an agency for cooperation with the Bureau of the Census (and other federal agencies) in the development of improved statistics for Florida's population.

Two subcommittees were appointed during the year by the chairman. First, a Subcommittee on Census Tracts to act as liaison between the Census Bureau and several untraced metropolitan areas in the state. The first areas to be considered were West Palm Beach, Ft. Lauderdale-Hollywood and Pensacola. The second subcommittee appointed was the Subcommittee on Population Estimates and Projections. This committee was to study methodology for current population estimates and population projections.

As of the end of the year, members of the Demographic Committee were as follows: John N. Webb, Ph.D., College of Business Administration, University of Florida, Chairman; T. Stanton Dietrich, Ph.D., Department of Sociology, Florida State University (FSU), Vice Chairman; Everett H. Williams, Jr., SBH, Secretary; Robert B. Beasley, Management Director, Florida Industrial Commission; James O. Bond, M.D., SBH; Oliver Boorde, Statistician, SBH; John O. Boynton, Research Director, Florida Development Commission; Ralph A. Bradley, Ph.D., Head of Department of Statistics, FSU; Richard G. Cornell, Ph.D., Associate Professor, Department of Statistics, FSU; Howard Croom, Assistant Director for Administration, State Department of Public Welfare; John K. Folger, Ph.D., Dean, Graduate School, FSU; Charles M. Grigg, Ph.D., Director, Institute for Social Research, FSU; Albert V. Hardy, M.D., Assistant State Health Officer, SBH; Robert G. Hoffmann, Ph.D., University of Florida Medical School; George B.

Hurff, Ph.D., Bureau of Economic and Business Research, University of Florida; Miss Iris Kiem, Biostatistician, University of Miami School of Medicine; George Macesich, Ph.D., Director, Council on Economic Development; Edward A. Mueller, Assistant Engineer for Traffic and Planning, State Road Department; Travis J. Northcutt, Ph.D., Social Scientist, SBH; Carter Osterbind, Ph.D., Director, Bureau of Economic and Business Research, University of Florida; James A. Paisley, Chief, Research Division, Metropolitan Dade County; Earl R. Rich, Ph.D., Department of Zoology, University of Miami; T. Lynn Smith, Ph.D., Head, Department of Sociology, University of Florida; Miss Dena Snodgrass, Research Analyst, State Chamber of Commerce; Mitchell Wade, Ph.D., specialist in Research and Statistics, State Department of Education; Irving L. Webber, Ph.D., Research Social Scientist, Pinellas County Health Department.

STATISTICAL SECTION

OLIVER H. BOORDE, B.S., B.A.
Director

This section of the Bureau of Vital Statistics is responsible for summarizing and analyzing data obtained from vital records and from special studies. It also provides statistical support and consultation to all bureaus and divisions of the State Board of Health.

During the year, the statistical section publishes a monthly vital statistics bulletin which reveals the latest available data on births, deaths, marriages and divorces. Accompanying this bulletin is a monthly article concerning various subjects of public health interest. It is widely distributed to county health departments, hospitals, libraries, schools and to persons expressing a desire to receive this type of information.

At the end of each year, the section publishes Supplement No. 1 to the State Board of Health Annual Report—a complete summary and analysis of vital statistics for the year. Supplement No. 2 to the Annual Report (Florida Morbidity Statistics) is published in cooperation with the Bureau of Preventable Diseases. This report reviews the number of cases of reportable diseases and analyzes any apparent trends.

During 1962, assistance was requested of the statistical section for a wide range of studies and surveys. Assistance primarily consisted of sample design and statistical interpretation of resulting data. Consultation was also provided to insure that study procedures were adaptable to IBM processing.

Among the major projects completed in 1962 was a sociological and immunization survey accomplished in connection with the Hillsborough County oral vaccine field trial. In this survey the section was

responsible for the sample design, sample selection, technical aspect of data collection and statistical interpretation of the data. Objectives were to determine the most effective means of persuading persons to take the vaccine and to determine the pre- and post-vaccination immunization level of the area.

A special survey was also conducted in the Bradenton-Sarasota area as to the result of the encephalitis outbreak in the area. The section's responsibilities were the same as in the Hillsborough County survey. The objectives in this study were to obtain data on living conditions of persons selected in the survey. There was also a serological aspect to this survey, wherein a blood sample was taken, when possible, and an encephalitis titer was determined.

During 1962, tabulations were completed and analyses begun on a detailed study of neonatal mortality in the state.

The following report presents a brief summary of preliminary vital statistics for 1962. A more detailed analysis of these statistics can be found in Supplement No. 1 of this report, entitled Florida Vital Statistics, 1962. Preliminary 1962 birth and death figures have been used in this report because of a time lag in receipt of records from the counties and the extensive process required to summarize the data in final form. Final 1962 data covering marriages, divorces and annulments are contained in Table 14, and Tables 11A and 12A present final 1961 natality and mortality figures.

Population

The Bureau of Economic and Business Research, University of Florida, provisionally estimated the 1962 midyear population of Florida at 5,349,900. This represents a gain of 3.7 per cent over their 1961 estimate of 5,158,100. On the basis of these figures, the state is adding an average of almost 16,000 persons to its population each month.

Births

Preliminary figures indicate a total of 115,520 births in 1962. This is a one per cent drop since 1961 and it resulted in a further decline of the birth rate per 1000 population from 22.6 in 1961 to 21.1 in 1962. The resident birth rate in Florida rose from 17.6 in 1940 to a peak of 25.0 per 1000 population in 1956. However, since 1956, the rate has gradually declined to its present level (21.6). The number of white births totaled 84,721 in 1962. This is a 1.3 per cent decrease from the preceding year and yielded a rate per 1000 white population of 19.3 in 1962 as compared with the 20.3 rate for 1961. The 30,799 nonwhite births in 1962 are approximately the same as the 1961 figure (30,803). However, the rate fell from 33.4 births per 1000 nonwhite population to 32.2 in 1962. The nonwhite birth rate remains about 50 per cent higher than the white birth rate. One

of the principal reasons for the declining birth rate, especially among the white, is that a large portion of Florida's in-migration has been by persons beyond the child-bearing ages.

Deaths

The preliminary mortality data for 1962 indicate a rise of 7.7 per cent in resident deaths (48,690 to 52,443) yielding a rate of 9.8 per 1000 population as compared with the 1961 rate of 9.4. Deaths among white residents rose from 39,703 and a rate per 1000 population of 9.4 in 1961 to 43,110 and a rate of 9.8 in 1962. Nonwhite deaths rose from 8987 and a rate of 9.7 in 1961 to 9333 deaths in 1962 with a rate of 9.8. Once again, increases in the state's aged population was probably the main cause of the higher rates.

The 10 leading causes of death with rates per 100,000 population for 1962, and with the comparative position of these causes in 1952 are represented in Table 10. The first six of these causes have remained in the same position throughout the period. It is interesting to note that the top three of these diseases—heart disease, cancer and cerebral vascular disease—are diseases associated with aging and all three experienced a rise in rates during the 1952-1962 period. This rise in death rates is probably due to the increasing average age of Florida citizens. Although the next two causes—all accidents and diseases of early infancy—retained their positions throughout this period, both experienced a drop in death rates. Influenza and pneumonia's position also remained static, although it shows a slight increase in rate during the period.

Three of the remaining leading causes of death (general arteriosclerosis, other circulatory diseases and diabetes mellitus) are also of a chronic nature and are more prevalent among the aged. Since 1952, general arteriosclerosis has moved from eighth place to seventh, and the death rate per 100,000 population rose slightly (15.4 to 16.4). Deaths from other circulatory diseases rose dramatically during this 10-year period as this cause went from a ranking of sixteenth place in 1952 to eighth in 1962 with a rate twice that of 1952 (7.7 to 15.4). Diabetes mellitus experienced a slight drop in death rate (14.0 to 13.9) during the 1952-1962 period, but retained its ranking of the ninth leading cause of death. Ranking tenth in 1962 were suicide deaths, with a rate of 13.1 per 100,000 population compared with 11.6 and a rank of twelfth in 1952. Although suicide is not generally thought of as a cause of death directly associated with aging, the death rate increases markedly among older people. Tuberculosis and chronic nephritis, ranking seventh and tenth in 1952, dropped to rankings of nineteenth and fifteenth, respectively, in 1962.

Marriages, Divorces and Annulments

There were 41,540 marriages in Florida in 1962, giving an increase of 54.3 per cent over 1952 when 26,924 marriages were recorded. However, the rate per 1000 population has dropped from 8.9 in 1952 to 7.8 in 1962 (12.4 per cent).

Divorces and annulments totaled 22,180 in 1962; an increase of 8.4 per cent over the 20,468 granted in 1952. The rate per 1000 population has dropped from 6.7 in 1952 to 4.1 in 1962 (38.8 per cent).

Infant Mortality

There were 3259 infant deaths in 1962. The rate per 10,000 live births has declined from 34.0 in 1952 to 28.2 (17.1 per cent) in 1962. The white rate declined from 25.8 to 22.2 between 1952 and 1962, and the nonwhite rate fell from 55.3 in 1952 to 44.8 in 1962.

TABLE 8
ACTIVITIES OF THE BUREAU OF VITAL STATISTICS
DURING THE YEARS 1961 AND 1962.

Activity	1961	1962	Per Cent Change
Current certificates filed	228,457	231,997	+ 1.5
Delayed birth certificates filed	3,519	3,254	- 7.5
Amended certificates filed for adoptions	3,900	4,225	+ 8.3
Adoption reports forwarded to other states	1,045	1,210	+15.8
Legitimations processed	466	526	+12.9
Legal changes of name received	935	976	+ 4.4
Requests for certifications:			
Total	119,822	122,149	+ 1.9
Fee paid	96,000	98,800	+ 2.9
Free	23,822	23,349	- 2.0
Photostats made	127,843	134,254	+ 5.0
Birth registration cards made	22,924	23,665	+ 3.2
Fees collected and transmitted to State Treasurer	\$151,990.78	\$157,194.42	+ 3.4

TABLE 9
RESIDENT BIRTHS AND DEATHS WITH RATES
PER 1000 POPULATION, FLORIDA,
1940, 1950, AND 1952-1962

Year	Midyear Population Estimate	Births	Birth Rate	Deaths	Death Rate
1962*	5,349,900	115,520	21.6	52,443	9.8
1961	5,158,100	116,886	22.7	49,110	9.5
1960	5,012,100	115,610	23.1	47,937	9.6
1959	4,742,900	112,733	23.8	44,179	9.3
1958	4,498,100	108,014	24.0	43,353	9.6
1957	4,186,200	103,806	24.8	39,937	9.5
1956	3,893,400	97,320	25.0	36,705	9.4
1955	3,662,000	89,112	24.3	33,295	9.1
1954	3,431,100	84,831	24.7	31,503	9.2
1953	3,223,000	80,087	24.8	30,529	9.5
1952	3,033,100	74,219	24.5	29,136	9.6
1950	2,797,100	64,370	23.0	26,525	9.5
1940	1,915,155	33,696	17.6	21,458	11.2

*Provisional estimate.

TABLE 10
TEN LEADING CAUSES OF DEATH WITH RATES PER 100,000 POPULATION, FLORIDA, 1952 AND 1962

1962 Rank	CAUSE OF DEATH	NUMBER OF DEATHS			RATE**			
		1962***			1952			1952 Rank
		Total	White	Non-white	Total	White	Non-white	
	Total Deaths	52,443	43,110	9,333	29,136	21,615	7,521	
1	Diseases of the heart (400-443)	18,900	16,599	2,301	9,577	7,787	1,790	1
2	Malignant neoplasms (140-205)	8,765	7,692	1,073	4,195	3,523	672	2
3	Cerebral vascular disease (330-334)	6,197	5,032	1,165	3,301	2,383	918	3
4	All accidents (800-962)	3,129	2,351	778	2,015	1,454	561	4
5	Diseases of early infancy (760-776)	1,947	1,192	755	1,510	886	624	5
6	Influenza and pneumonia (480-493)	1,679	1,176	503	901	452	449	6
7	General arteriosclerosis (450)	880	775	105	469	396	73	8
8	Other circulatory disease (451-468)	822	706	116	233	179	54	16
9	Diabetes mellitus (260)	745	591	154	424	328	96	9
10	Suicide (963, 970-979)	700	670	30	353	331	22	12
19	Tuberculosis—all forms (001-019)	215	136	79	501	250	251	7
15	Chronic nephritis (592-594)	326	219	107	423	246	177	10

*Rate per 1000 population.

**Based on midyear population estimates.

***Provisional data.

TABLE 11
RESIDENT DEATHS AND DEATH RATES BY CAUSE, BY RACE, FLORIDA, 1962 (PRELIMINARY)

CAUSE OF DEATH (Numbers in parentheses refer to the International List of Causes of Death)	DEATHS			Rate per 100,000 Population		
	Total	White	Nonwhite	Total	White	Nonwhite
	52,443	43,110	9,333	9.8*	9.8*	9.8*
ALL CAUSES	52,443	43,110	9,333	9.8*	9.8*	9.8*
Tuberculosis of respiratory system (001-008)	202	130	72	3.8	3.0	7.5
Tuberculosis, other forms (010-019)	106	57	49	2.0	1.3	5.1
Syphilis and its sequelae (020-029)	10	0	0	0.0	0.0	0.0
Typhoid fever (040)	10	0	0	0.0	0.0	0.0
Dysentery, all forms (045-048)	1	0	0	0.0	0.0	0.0
Diphtheria (050)	1	0	0	0.0	0.0	0.0
Scarlet fever (055)	1	0	0	0.0	0.0	0.0
Acute infectious diseases (057)	19	16	3	0.4	0.4	0.4
Acute poliomyelitis (080)	41	37	4	0.8	0.8	0.4
Acute infectious encephalitis (082)	10	5	5	0.2	0.1	0.5
Measles (085)	10	5	5	0.2	0.1	0.5
Mumps (088)	10	5	5	0.2	0.1	0.5
Typhus and other rickettsial diseases (100-108)	189	124	65	3.5	2.8	6.8
All other diseases classified as infective and pyretic (030 to 138 with exception of those listed above)	8,765	7,692	1,073	163.8	175.1	112.2
Malignant neoplasms (140-205)	8,765	7,692	1,073	163.8	175.1	112.2
Hematopoietic tissues (140-205)	145	81	64	2.8	1.8	3.8
Diabetes mellitus (260)	745	591	154	14.2	11.5	16.9
Anemias (290-293)	2,525	2,308	217	51.4	43.4	59.4
Major cardiovascular-renal disease (330-334)	6,197	5,032	1,165	115.8	99.2	145.3
Diseases of the heart (400-443)	18,900	16,599	2,301	366.3	377.8	283.3
Chronic rheumatic heart disease (410-416)	15	10	5	0.3	0.2	0.4
Chronic rheumatic heart disease, coronary artery disease (420)	461	414	47	8.9	8.4	9.4
Atherosclerotic heart disease, coronary artery disease (420)	14,708	13,456	1,252	274.9	266.3	306.3
Nonrheumatic chronic endocarditis and myocardial degeneration (421, 422)	1,170	1,100	70	22.2	21.6	23.1
Hypertension with heart disease (440-443)	1,994	1,794	200	37.8	36.4	40.9
Other diseases of heart (430-434)	400	375	25	7.5	6.3	8.8
Hypertension without heart disease (444-447)	880	775	105	16.4	14.5	18.3
Hypertension with heart disease (440-443)	822	706	116	15.4	13.4	17.4
Other circulatory disease (451-468)	326	219	107	6.2	5.0	7.4
Chronic and unspecified nephritis (592-594)	326	219	107	6.2	5.0	7.4
Influenza (480-483)	1,679	1,176	503	31.5	25.5	37.5
Pneumonia (490-493)	1,947	1,192	755	36.8	29.7	43.8
Ulcer of stomach and duodenum (540-541)	302	163	139	5.6	3.7	7.5
Intestinal obstruction and hernia (560-569)	618	537	81	11.6	12.7	6.4
Gravid uterus, except eclampsia and toxemia (630-639)	62	34	28	1.2	0.8	2.9
Cirrhosis of liver (581)	49	21	28	0.9	0.2	1.6
Acute nephritis and nephrosis (590, 591)	49	21	28	0.9	0.2	1.6
Complications of pregnancy, childbirth and the puerperium (640-652, 660, 670-689)	598	460	138	11.2	9.2**	12.2*
Congenital malformations (750-759)	834	535	299	15.6	12.5	18.3
Infection of the newborn (760-769)	164	100	64	3.0	2.0	4.0
Infection of the newborn (765-768)	949	572	377	17.7	13.0	22.4
Other diseases peculiar to early infancy, and immaturity unqualified (769-776)	3,021	2,731	290	56.8	49.9	63.6
Symptoms, senility, and ill-defined causes (780-795)	1,078	901	177	20.3	16.8	23.8
All other diseases (residual)	1,273	1,078	195	24.3	19.5	29.1
Motor vehicle accidents (810-835)	1,778	1,273	505	33.2	25.0	41.4
All other accidents (800-802, 840-862)	700	670	30	13.1	11.6	14.7
All other accidents (800-802, 840-862)	1,778	1,273	505	33.2	25.0	41.4
Suicide (963, 970-979)	700	670	30	13.1	11.6	14.7
Homicide and operations of war (964, 965, 980-999)	475	166	309	8.9	3.8	13.3
Infant mortality (deaths under one year of age)	3,259	1,880	1,379	28.2***	22.1***	45.1***

*Rate per 1000 population.

**Rate per 10,000 live births.

***Rate per 1000 live births.

—Less than 0.05 per 100,000 population.

TABLE 11A
RESIDENT DEATHS AND DEATH RATES BY CAUSE, BY RACE, FLORIDA, 1961 (FINAL FIGURES)

CAUSE OF DEATH (Numbers in parentheses refer to the International List of Causes of Death)	DEATHS			Rate per 100,000 Population		
	Total	White	Nonwhite	Total	White	Nonwhite
ALL CAUSES	48,690	39,703	8,987	9.4*	9.4*	9.7*
Tuberculosis of respiratory system (001-008)	200	132	68	3.9	3.1	7.4
Tuberculosis of other organs (009-019)	17	9	8	0.3	0.3	0.9
Syphilis and its sequelae (020-029)	97	35	62	0.3	0.3	0.7
Typhoid fever (040)	0	0	0	0.0	0.0	0.0
Dysentery, all forms (045-048)	5	5	0	0.1	0.1	0.0
Scarlet fever and strep sore throat (050, 051)	1	1	0	0.1	0.1	0.0
Diphtheria (055)	4	2	2	0.1	0.1	0.2
Whooping cough (056)	17	11	6	0.3	0.2	0.7
Measles (057)	0	0	0	0.0	0.0	0.0
Acute poliomyelitis (080)	26	19	7	0.5	0.4	0.8
Acute infectious encephalitis (082)	10	0	0	0.2	0.2	0.0
Measles (085)	170	114	56	3.3	2.7	6.1
Typhus and other rickettsial diseases (100-108)	8,233	7,175	1,058	169.6	169.4	114.7
All other diseases classified as infective and parasitic (109 to 138 with exception of 110-119)	123	77	46	2.4	2.2	3.3
Malignant neoplasms (140-205)	103	57	46	13.6	13.6	13.6
Benign and unspecified neoplasms (210-239)	25,300	21,747	3,553	494.4	513.4	407.0
Anemias (290-293)	5,660	4,559	1,101	109.7	107.6	119.6
Major cardiovascular-renal disease (330-334)	17,586	15,410	2,176	340.9	368.9	235.6
Diseases of heart (340-344)	467	337	130	8.9	9.9	4.3
Chronic rheumatic heart disease (410-416)	13,577	12,433	1,144	264.6	292.8	134.9
Arteriosclerotic heart disease, coronary disease (420)	1,136	938	198	22.0	22.1	21.5
Nonrheumatic chronic endocarditis and myocardial degeneration (421, 422)	1,493	966	527	28.9	27.1	37.1
Hypertension with heart disease (440-443)	840	678	162	16.3	16.0	17.6
Other diseases of heart (430-434)	371	227	144	7.2	7.4	11.4
Hypertension without heart disease (444-447)	843	738	105	16.3	16.3	14.4
General arteriosclerosis (450-454)	720	608	112	14.0	14.4	12.1
Other diseases of blood vessels (455-468)	320	224	96	6.2	6.2	6.2
Chronic and unspecified nephritis (592-594)	1,152	817	335	23.1	19.3	40.7
Diabetes (580-583)	101	86	15	2.0	2.0	1.8
Pneumonia (480-483)	315	271	44	6.1	6.1	1.4
Bronchitis (490-493)	257	202	55	5.0	4.8	6.0
Ulcus of stomach and duodenum (540-541)	337	175	162	6.5	4.1	17.6
Appendicitis (550-553)	591	531	60	11.5	12.5	6.5
Intestinal polyps, enteritis and colitis, except diarrhea of the newborn (560, 561, 570)	48	22	26	0.9	0.5	2.8
Chronic and unspecified enteritis and colitis, except diarrhea of the newborn (543, 571, 572)	133	103	30	2.6	2.4	3.3
Cirrhosis of liver (581)	58	39	19	1.1	1.0	1.2
Acute nephritis and nephrosis (590, 591)	612	473	139	12.2	11.0	15.9
Complications of pregnancy, childbirth and the puerperium (640-657, 660, 670-689)	705	566	139	13.6	13.6	10.4
Birth injuries, postnatal asphyxia and atelectasis (760-762)	988	663	325	19.2	15.7	33.2
Infection of the newborn (763-768)	777	457	320	15.1	10.8	25.8
Other diseases peculiar to early infancy, and immaturity unqualified (769-776)	2,867	2,288	579	55.6	53.0	68.4
Symptoms, senility, and ill-defined causes (780-795)	1,241	979	262	25.1	23.0	28.4
All other diseases (residual) (800-835)	1,298	1,139	159	26.9	26.9	49.8
Motor vehicle accidents (840-842)	664	477	187	12.9	14.9	3.7
Other accidents (843-849)	1,394	1,194	200	28.1	28.1	35.2
Suicide and self-inflicted injury (860, 861, 862)	477	325	152	9.2	9.2	9.2
Infant mortality (deaths under one year of age)	3,390	1,994	1,396	29.1***	23.2***	45.3***

*Rate per 1000 population

**Rate per 10,000 live births.

***Rate per 1000 live births.

—Less than 0.05 per 100,000 population.

TABLE 12

ESTIMATED POPULATION AND RESIDENT
BIRTHS, DEATHS, AND INFANT DEATHS,
BY RACE, BY COUNTY, FLORIDA, 1962

(Preliminary)

COUNTY	Population 1962 Prov. Est.	BIRTHS			DEATHS			INFANT DEATHS		
		Total	White	Non-white	Total	White	Non-white	Total	White	Non-white
STATE	5,349,900	115,520	84,921	30,599	52,443	43,110	9,333	3,259	1,880	1,379
Alachua	82,800	2,205	1,487	718	600	330	270	68	19	49
Baker	7,700	179	121	58	55	42	13	7	3	4
Bay	66,600	1,870	1,540	330	452	371	81	55	41	14
Bradford	12,900	284	200	84	123	93	30	9	7	2
Brevard	134,700	3,858	3,252	606	830	708	122	91	70	21
Broward	377,000	7,433	5,132	2,301	3,546	3,022	524	214	102	112
Calhoun	7,500	178	138	40	83	70	13	6	5	1
Charlotte	16,700	237	211	26	233	221	12	4	3	1
Citrus	10,300	175	131	44	126	109	17	8	6	2
Clay	19,000	477	393	84	151	125	26	15	13	2
Collier	19,300	460	364	96	154	114	40	14	12	2
Columbia	21,200	527	327	200	234	152	82	19	9	10
Dade	1,024,100	19,686	14,567	5,119	9,334	8,186	1,148	478	293	185
DeSoto	12,700	269	190	79	121	97	24	8	6	2
Dixie	4,600	130	111	19	51	41	10	3	3	0
Duval	482,600	12,599	9,181	3,418	3,953	2,692	1,261	360	216	144
Escambia	183,100	5,039	3,717	1,322	1,203	853	350	143	85	58
Flagler	4,100	98	44	54	70	42	28	8	2	6
Franklin	7,100	159	122	37	96	74	22	4	3	1
Gadsden	43,100	1,134	772	362	358	115	243	71	8	63
Gilchrist	2,700	53	43	10	37	33	4	4	3	1
Glades	2,600	47	27	20	24	15	9	3	1	2
Gulf	9,400	259	187	72	64	45	19	4	2	2
Hamilton	7,700	209	105	104	87	47	40	8	2	6
Hardee	12,900	297	258	39	126	117	9	4	2	2
Hendry	9,600	264	146	118	80	52	28	7	3	4
Hernando	12,000	289	186	103	123	109	14	8	4	4
Highlands	23,600	574	385	189	304	232	72	21	9	12
Hillsborough	413,000	9,281	7,421	1,860	4,109	3,435	674	277	190	87
Holmes	11,100	193	180	13	122	118	4	8	8	0
Indian River	28,400	643	449	194	326	260	66	23	10	13
Jackson	34,900	716	442	274	323	225	98	18	9	9
Jefferson	9,200	249	71	178	110	37	73	11	0	11
Lafayette	3,200	57	43	14	38	34	4	3	1	2
Lake	61,700	1,176	812	364	763	653	110	44	22	22
Lee	65,300	1,308	992	316	657	540	117	38	25	13
Leon	76,200	1,905	1,211	694	519	284	235	46	22	24
Levy	11,300	257	134	123	111	80	31	7	0	7
Liberty	3,100	69	54	15	18	15	3	1	0	1
Madison	14,900	377	158	219	140	68	72	14	1	13
Manatee	75,200	1,176	835	341	1,051	928	123	35	23	12
Marion	56,600	1,280	705	575	584	354	230	34	12	22
Martin	19,400	397	274	123	232	173	59	16	5	11
Monroe	53,900	1,379	1,242	137	364	310	54	28	22	6
Nassau	18,300	437	305	132	143	96	47	11	8	3
Okaloosa	63,600	2,047	1,839	208	288	260	28	48	42	6
Okeechobee	7,700	214	166	48	57	41	16	6	5	1
Orange	285,400	6,682	5,323	1,359	2,438	2,080	358	194	127	67
Osceola	19,500	340	264	76	329	294	35	16	10	6
Palm Beach	252,900	5,287	3,516	1,771	2,669	2,112	557	149	69	80
Pasco	38,600	617	521	96	495	467	28	13	11	2
Pinellas	401,300	5,660	4,539	1,121	6,249	5,923	326	135	89	46
Polk	206,300	4,479	3,305	1,174	1,907	1,537	370	132	81	51
Putnam	33,000	793	480	313	330	219	111	23	10	13
St. Johns	30,500	674	438	236	333	235	98	23	7	16
St. Lucie	43,500	976	499	477	427	294	133	36	9	27
Santa Rosa	32,700	1,057	963	94	214	176	38	23	18	5
Sarasota	84,500	1,363	1,102	261	1,100	1,017	83	40	23	17
Seminole	62,800	1,537	1,119	418	510	347	163	41	23	18
Sumter	12,400	276	146	130	152	119	33	13	5	8
Suwannee	16,200	367	237	130	158	112	46	7	6	1
Taylor	13,600	349	247	102	119	73	46	5	3	2
Union	6,400	103	65	38	55	43	12	3	2	1
Volusia	133,100	2,200	1,544	656	2,045	1,776	269	68	41	27
Wakulla	5,500	106	63	43	44	26	18	3	0	3
Walton	15,600	287	239	48	151	134	17	10	8	2
Washington	11,500	217	141	76	145	108	37	8	1	7

TABLE 12A

ESTIMATED POPULATION, RESIDENT BIRTH AND DEATH RATES
PER 1000 POPULATION AND RESIDENT INFANT DEATH RATES
PER 1000 LIVE BIRTHS, BY RACE AND COUNTY, 1961
(FINAL FIGURES)

COUNTY	Midyear Population Estimate 1961	BIRTH RATE			DEATH RATE			INFANT DEATH RATE		
		Total	White	Non- white	Total	White	Non- white	Total	White	Non- white
STATE	5,158,100	22.6	20.3	33.4	9.4	9.4	9.7	29.1	23.2	45.8
Alachua†	79,700	32.6	31.1	36.2	8.9	7.5	12.4	23.5	13.3	45.1
Baker	7,200	29.2	27.0	36.9	9.3	8.2	13.1	38.1	39.7	33.9*
Bay	66,000	30.1	29.4	34.2	6.3	6.2	7.2	23.1	20.0	38.3
Bradford	12,800	24.5	23.2	29.0	10.3	10.0	11.3	31.8	26.4	46.0*
Brevard	119,600	29.2	28.0	39.2	5.8	5.6	7.5	28.9	26.6	41.9
Broward	367,500	21.0	17.3	39.2	8.6	8.7	8.0	30.0	21.1	49.7
Calhoun	7,000	21.7	21.4	23.6	11.0	10.8	11.8	39.5	39.7	38.5*
Charlotte	16,400	14.3	14.2	16.0	13.6	13.7	12.0	38.5	36.7	62.5*
Citrus	11,000	17.3	14.6	29.5	10.7	11.1	9.0	21.1	22.9	16.9*
Clay	21,400	23.6	22.8	28.3	8.2	7.6	12.3	25.8	28.6	11.8*
Collier	18,700	22.8	21.7	28.2	8.0	7.7	9.4	35.1	35.9	32.3*
Columbia	19,600	26.1	23.5	32.0	10.9	10.1	12.9	45.0	43.5	47.6
Dade	968,700	20.2	17.6	35.3	9.0	9.2	7.6	24.4	21.3	33.2
DeSoto†	13,800	25.0	23.5	29.7	9.5	8.9	11.3	33.0	28.0	44.9*
Dixie	4,700	24.0	22.5	32.9	9.6	9.2	11.4	35.4	11.1*	130.4*
Duval	460,900	27.9	26.5	32.8	8.2	7.5	10.7	26.2	20.7	40.7
Escambia	180,400	29.2	27.4	36.3	6.9	6.3	9.2	24.8	18.9	41.6
Flagler	4,600	23.5	11.8	41.7	9.1	6.4	13.3	46.3	30.3*	53.3*
Franklin	7,000	24.3	23.1	28.7	12.7	13.3	10.7	23.5	23.6	23.3*
Gadsden†	41,300	32.9	20.5	40.3	10.3	9.2	11.0	60.9	33.6	69.2
Gilchrist	2,700	23.3	19.2	56.7	12.2	10.4	26.7	31.7*	0*	117.6*
Glades	3,000	19.3	20.0	18.3	7.7	10.0	4.2	17.2*	27.8*	0*
Gulf	11,000	26.1	22.7	36.9	6.9	5.6	11.2	34.8	20.9	62.5*
Hamilton	7,900	28.4	22.7	35.4	10.5	10.2	10.9	31.3	40.0	24.2
Hardee	12,500	23.8	21.8	42.5	9.2	9.3	8.3	23.6	20.3	39.2*
Hendry	9,100	27.7	24.1	37.2	8.7	6.2	15.2	55.6	31.4	96.8*
Hernando	12,400	26.2	22.4	40.4	11.2	11.4	10.4	33.8	27.3	47.6
Highlands	22,600	23.9	19.5	40.2	11.4	10.8	13.3	51.9	37.5	77.7
Hillsborough	402,100	23.4	22.1	32.0	9.7	9.3	12.2	32.2	26.2	57.7
Holmes	10,700	14.6	13.9	32.5	11.4	10.8	27.5	32.1	28.0	76.9*
Indian River	26,100	24.5	20.7	38.4	10.0	10.5	8.2	21.9	18.9	27.9
Jackson	35,400	20.4	17.6	26.5	8.2	8.2	8.5	36.1	32.6	41.2
Jefferson	9,600	26.6	16.7	33.3	9.8	10.3	9.5	39.2	15.4*	47.4
Lafayette	3,100	15.2	10.4	47.5	11.3	11.1	12.5	42.6*	35.7*	52.6*
Lake	57,500	20.1	17.3	31.3	12.6	12.8	12.1	43.4	31.1	71.4
Lee	63,000	20.8	18.3	34.2	9.5	9.0	12.2	31.3	27.8	41.3
Leont†	74,400	30.0	28.9	32.2	8.7	7.0	11.9	32.4	20.2	53.6
Levy	11,200	21.0	14.1	36.8	11.1	10.4	12.6	51.1	45.5	56.0
Liberty	3,100	27.7	26.2	36.0	11.6	11.2	14.0	23.3*	29.4*	0*
Madison	15,600	22.4	17.2	28.1	9.6	10.5	8.5	48.7	42.6	52.9
Manatee	74,500	17.1	14.3	32.6	12.2	12.7	9.4	38.6	34.3	48.9
Marion	53,200	23.2	20.1	28.8	10.8	10.0	12.4	28.4	21.5	37.3
Martin	19,100	21.3	15.7	42.8	10.3	10.3	10.5	46.8	29.3	71.9
Monroe	47,300	27.5	27.8	25.5	7.2	6.9	9.2	26.9	24.6	48.0
Nassau	18,000	26.0	24.6	30.2	8.9	7.9	12.0	42.7	45.2	36.8
Okaloosa	67,600	30.4	29.6	41.1	4.5	4.2	7.7	27.8	25.3	51.8
Okeechobee	8,100	26.4	25.4	31.5	8.9	7.4	16.9	28.0	28.9	24.4*
Orange	275,400	25.2	23.8	33.3	8.1	7.9	9.0	25.5	22.1	39.3
Osceola	19,500	18.0	16.3	32.4	15.4	15.6	13.3	31.3	31.8	29.4*
Palm Beach	236,300	21.3	18.3	31.3	10.0	10.3	9.0	37.7	27.2	58.5
Pasco	37,400	18.3	17.7	22.6	13.1	13.6	9.0	36.5	32.3	63.2*
Pinellas	392,000	14.7	12.9	33.9	14.2	14.8	8.3	27.2	24.2	38.9
Polk	201,500	22.8	21.1	30.5	8.6	8.5	8.7	28.3	22.8	44.9
Putnam	32,300	27.1	23.4	35.4	11.1	9.3	15.2	33.1	13.4	62.1
St. Johns	30,900	21.9	19.2	28.9	11.5	11.3	12.0	25.1	16.2	40.7
St. Lucie	43,900	21.7	17.9	29.7	10.2	10.6	9.4	55.6	37.7	77.8
Santa Rosa	28,900	35.6	35.6	35.7	6.3	5.6	16.2	23.3	18.9	80.0*
Sarasota	82,300	16.2	14.3	34.0	11.0	11.0	10.9	24.7	19.7	44.1
Seminole	61,100	25.2	23.9	28.9	7.8	7.0	10.3	24.7	14.5	50.5
Sumter	11,500	22.0	18.1	33.0	11.0	10.2	13.3	39.5	19.5	70.7*
Suwannee	14,900	23.2	19.5	32.7	12.0	10.5	16.1	34.8	19.0	59.7
Taylor	12,900	26.9	25.2	32.2	10.0	9.0	13.1	11.5	16.4	0
Union†	6,200	27.0	22.6	44.4	13.0	13.7	10.0	0	0*	0*
Volusia	129,900	18.5	16.1	30.4	13.7	14.4	10.1	25.8	24.8	28.4
Wakulla	5,800	19.5	18.3	22.4	8.6	7.1	12.4	17.7	13.3*	26.3*
Walton	14,700	20.6	19.1	30.5	10.0	9.8	11.0	23.1	16.5	49.2*
Washington	11,600	19.9	16.1	35.2	11.1	11.0	11.7	30.3	26.7	37.0

*Based on less than 100 live births, which limits the significance of the rate.
†Rates based on population excluding large institutional segments.

TABLE 13

PRELIMINARY TOTALS OF RESIDENT DEATHS FROM
CERTAIN CAUSES BY COUNTIES, FLORIDA, 1962

COUNTIES	Maternal Deaths	Tuberculosis	Syphilis	Dysentery (All Forms)	Acute Polymyelitis	Malignant Neo- plasms (Cancer)	Diabetes	Anemias	Influenza & Pneumonia	Cardio-Vascular-Renal Diseases				Motor Vehicle Accidents	Other Accidents
										*Cerebral Vascular Disease	Heart Disease	Chronic Nephritis	All Other C-V. R. Disease		
STATE	49	215	106	10	1	8,765	745	117	1,679	6,197	18,900	326	2,102	1,351	1,778
Alachua	0	1	1	0	0	98	2	1	18	85	165	5	30	18	12
Baker	0	0	0	0	0	7	0	0	6	8	14	0	4	0	2
Bay	0	3	2	0	0	60	8	3	14	45	132	0	19	13	24
Bradford	1	1	0	0	0	20	1	0	6	16	31	3	3	5	6
Brevard	0	2	0	0	0	114	16	0	21	78	279	4	29	38	35
Broward	4	7	7	0	0	638	60	13	122	324	1,322	27	154	70	119
Calhoun	0	0	0	0	0	11	0	0	2	10	39	0	2	1	3
Charlotte	0	0	0	0	0	42	4	0	2	23	115	0	9	2	5
Citrus	0	0	0	0	0	25	0	0	3	18	53	0	5	2	4
Clay	0	0	0	0	0	26	4	1	6	24	42	0	10	1	9
Collier	0	0	0	1	0	22	2	0	6	14	47	1	7	6	5
Columbia	0	6	1	0	0	28	2	0	6	34	76	1	5	13	9
Dade	11	59	20	3	0	1,727	156	18	268	859	3,436	55	338	225	246
DeSoto	0	0	1	0	0	22	2	0	2	17	34	2	7	3	2
Dixie	0	1	0	0	0	11	1	0	4	7	9	1	3	4	1
Duval	3	24	19	1	0	637	55	9	125	471	1,260	18	166	107	166
Escambia	1	9	1	0	0	168	7	1	46	123	412	4	40	60	60
Flagler	0	0	0	0	0	10	0	0	4	9	20	0	4	3	6
Franklin	0	0	0	0	0	20	1	0	2	17	40	1	4	2	5
Gadsden	1	0	1	0	0	36	4	1	18	32	97	2	11	13	33
Gilchrist	0	0	0	0	0	2	0	0	3	3	17	1	2	0	2
Glades	0	1	0	0	0	3	0	0	0	2	8	0	0	0	2
Gulf	0	1	0	0	0	9	1	0	0	8	27	0	1	1	8
Hamilton	0	1	0	0	0	7	2	0	3	9	44	0	2	2	1
Hardee	0	1	2	0	0	23	1	0	4	22	34	0	4	7	6
Hendry	0	0	0	0	0	11	0	0	3	3	24	0	6	8	3
Hernando	0	0	0	0	0	27	2	0	2	16	36	0	9	6	1
Highlands	0	1	1	0	0	56	6	2	7	38	104	4	8	11	6
Hillsborough	6	16	10	1	0	667	63	18	144	508	1,498	26	147	95	130
Holmes	0	0	0	0	0	15	0	0	4	14	54	3	5	3	2
Indian River	0	0	1	0	0	53	2	0	13	35	127	2	8	13	12
Jackson	0	0	1	0	0	41	5	0	10	47	120	5	22	8	6
Jefferson	1	0	0	0	1	14	1	0	5	15	36	2	8	0	6
Lafayette	0	0	0	0	0	4	1	0	0	6	13	1	1	1	4
Lake	0	1	1	0	0	126	11	2	22	82	276	6	48	23	27
Lee	0	1	0	0	0	101	11	0	18	71	212	5	25	18	25
Leon	0	5	1	0	0	70	5	5	23	62	164	5	16	10	21
Levy	0	0	0	0	0	11	1	0	11	18	30	0	5	3	6
Liberty	0	0	0	0	0	3	0	0	0	3	5	0	1	1	1
Madison	1	0	2	0	0	19	0	1	6	9	57	0	2	3	8
Manatee	0	4	2	0	0	158	20	1	48	157	417	6	37	16	38
Marion	2	2	1	0	0	88	4	0	10	97	203	5	18	17	27
Martin	0	0	2	0	0	32	4	0	5	31	80	2	8	8	5
Monroe	1	0	0	0	0	57	5	0	11	42	111	4	14	21	16
Nassau	0	0	0	0	0	30	2	1	3	15	36	2	3	8	8
Okaloosa	0	2	0	0	0	30	4	0	14	27	94	5	7	10	15
Okeechobee	0	1	0	0	0	6	1	0	6	3	16	1	1	3	8
Orange	2	8	3	1	0	385	33	3	102	322	896	18	80	74	79
Osceola	0	0	2	0	0	56	1	0	11	46	106	2	12	5	15
Palm Beach	4	10	0	0	0	502	46	6	84	356	885	8	90	80	96
Pasco	1	1	1	0	0	80	7	0	10	62	210	1	24	18	17
Pinellas	0	13	6	1	0	1,144	63	12	158	925	2,541	25	323	89	107
Polk	4	8	2	0	0	313	34	4	58	233	630	19	85	72	67
Putnam	1	3	2	2	0	32	6	2	16	31	129	14	6	10	19
St. Johns	0	0	1	0	0	56	4	1	11	38	107	4	19	4	16
St. Lucie	0	4	2	0	0	74	7	0	13	41	137	3	12	14	13
Santa Rosa	0	1	0	0	0	23	2	0	8	25	71	2	4	9	36
Sarasota	1	3	1	0	0	201	14	1	31	143	420	3	57	24	38
Seminole	1	2	2	0	0	88	8	1	20	54	169	0	20	12	23
Sumter	0	0	0	0	0	20	3	0	4	18	44	3	2	7	10
Suwannee	0	1	1	0	0	16	2	1	8	27	51	2	5	1	12
Taylor	1	0	2	0	0	20	0	1	7	17	45	0	4	4	3
Union	0	2	0	0	0	1	0	0	3	7	24	0	2	1	2
Volusia	2	9	4	0	0	336	36	7	64	232	834	12	89	39	60
Wakulla	0	0	0	0	0	7	1	0	2	10	10	0	2	0	2
Walton	0	0	0	0	0	15	0	0	8	27	64	0	1	3	7
Washington	0	0	0	0	0	11	1	1	5	26	61	1	7	3	7

TABLE 14
MARRIAGES BY RACE, DIVORCES AND ANNULMENTS
BY COUNTY, FLORIDA, 1962

COUNTY	MARRIAGES			DIVORCES	ANNULMENTS
	Total	White	Nonwhite		
STATE	41,504	34,499	7,005	21,997	181
Alachua	540	391	149	187	0
Baker	86	64	22	61	0
Bay	492	404	88	273	1
Bradford	116	104	12	61	1
Brevard	963	821	142	673	5
Broward	2,961	2,438	523	1,392	10
Calhoun	41	38	3	50	0
Charlotte	113	104	9	74	0
Citrus	105	89	16	61	0
Clay	106	94	12	77	0
Collier	189	167	22	82	0
Columbia	189	123	66	86	0
Dade	8,953	7,730	1,223	4,765	64
DeSoto	136	119	17	49	1
Dixie	54	45	9	30	0
Duval	2,991	2,363	628	2,057	10
Escambia	1,448	1,145	303	959	19
Flagler	52	36	16	95	1
Franklin	59	50	9	27	0
Gadsden	152	78	74	77	0
Gilchrist	48	38	10	7	0
Glades	36	25	11	24	0
Gulf	89	67	22	38	0
Hamilton	58	38	20	32	0
Hardee	178	151	27	273	2
Hendry	127	100	27	68	0
Hernando	144	124	20	55	0
Highlands	208	158	50	85	2
Hillsborough	3,462	2,992	470	1,842	9
Holmes	119	112	7	64	0
Indian River	234	175	59	80	1
Jackson	168	136	32	48	0
Jefferson	56	28	28	30	0
Lafayette	15	15	0	0	0
Lake	482	381	101	833	4
Lee	492	409	83	234	1
Leon	480	333	147	240	3
Levy	91	68	23	33	0
Liberty	6	5	1	8	0
Madison	76	56	20	31	0
Manatee	579	473	106	172	0
Marion	478	312	166	122	0
Martin	192	153	39	88	0
Monroe	443	399	44	293	3
Nassau	84	68	16	43	0
Okaloosa	323	305	18	297	2
Okeechobee	87	73	14	44	0
Orange	2,140	1,806	334	523	4
Osceola	230	190	40	77	0
Palm Beach	1,946	1,535	411	853	5
Pasco	400	365	35	112	3
Pinellas	2,909	2,617	292	1,337	13
Polk	1,792	1,483	309	773	4
Putnam	215	148	67	330	1
St. Johns	218	171	47	217	3
St. Lucie	355	236	119	191	1
Santa Rosa	205	187	18	106	1
Sarasota	700	643	57	265	1
Seminole	366	268	98	226	0
Sumter	130	104	26	111	2
Suwannee	119	87	32	39	0
Taylor	112	82	30	38	0
Union	49	41	8	17	0
Volusia	915	770	145	486	4
Wakulla	36	29	7	0	0
Walton	87	74	13	44	0
Washington	79	66	13	32	0

TABLE 15
VITAL STATISTICS SCOREBOARD
BASED ON PROMPTNESS AND COMPLETENESS OF
CERTIFICATES, FLORIDA, 1962

COUNTY	Rank	Per Cent of Certificates Filed on Time		Per Cent of Complete Certificates		Per Cent of Monthly Reports Submitted on Time	Total Score (Maximum 500) 	Change From 1961 Total Score
		Births	Deaths	Births	Deaths			
STATE		94.9	97.7	99.7	99.5	94.3	486.1	+ 1.6
Jax.-Duval	1	100.0	100.0	100.0	99.9	100.0	499.9	+ 0.3
Dade	2	98.5	100.0	99.9	99.9	100.0	498.3	+ 0.5
Citrus	3	99.4	100.0	98.7	100.0	100.0	498.1	+ 1.8
Hillsborough	4	98.4	99.6	100.0	99.8	100.0	497.8	+ 0.5
Martin	5	98.6	100.0	99.7	99.1	100.0	497.4	+ 4.7
Volusia	6	99.3	98.8	99.7	99.5	100.0	497.3	+ 9.0
Hernando	7	99.7	100.0	100.0	97.2	100.0	496.9	+ 9.2
Seminole	8	99.7	99.5	98.9	98.5	100.0	496.6	+ 2.7
Orange	8	97.7	99.2	99.9	99.8	100.0	496.6	- 0.7
Polk	10	98.4	97.9	99.5	99.0	100.0	494.8	+15.3
Escambia	11	97.6	97.1	99.9	99.8	100.0	494.4	- 0.1
Pinellas	12	96.4	97.7	99.9	99.9	100.0	493.9	- 1.0
Clay	13	98.2	97.4	98.8	98.0	100.0	492.4	+ 2.6
Palm Beach	14	92.4	99.2	99.7	99.6	100.0	490.9	+ 2.3
Broward	15	99.1	100.0	99.8	99.7	91.7	490.3	- 8.1
Sarasota	16	99.4	99.8	99.9	99.3	91.7	490.1	+ 8.9
Alachua	17	91.4	98.7	99.8	99.9	100.0	489.8	- 4.6
Bay	18	95.8	94.5	99.9	97.8	100.0	488.0	+10.9
Jefferson	19	98.3	100.0	99.2	98.7	91.7	487.9	- 7.3
Bradford	20	99.0	98.4	99.3	99.2	91.7	487.6	+16.4
Suwannee	21	91.5	97.1	99.7	98.6	100.0	486.9	0
Washington	21	96.9	91.7	100.0	98.3	100.0	486.9	- 1.5
Baker	23	98.2	99.1	98.8	98.2	91.7	486.0	- 5.2
Indian River	24	99.0	97.3	98.2	99.7	91.7	485.9	+ 9.9
Hardee	25	98.4	99.0	98.4	98.1	91.7	485.6	+20.7
Lee	25	86.5	99.7	99.6	99.8	100.0	485.6	- 1.7
Putnam	27	92.3	95.0	98.9	99.0	100.0	485.2	+14.3
St. Lucie	28	92.5	93.5	99.6	99.5	100.0	485.1	+ 7.2
Brevard	29	96.2	98.9	99.3	98.0	91.7	484.1	+10.1
Gulf	30	93.3	94.6	99.3	96.4	100.0	483.6	+ 3.1
Levy	31	98.1	85.9	99.4	100.0	100.0	483.4	+ 2.4
Walton	32	92.3	91.7	100.0	99.3	100.0	483.3	+ 9.8
Taylor	33	86.9	96.3	99.7	100.0	100.0	482.9	+ 9.6
Highlands	34	87.9	96.2	99.2	98.6	100.0	481.9	+34.1
Franklin	35	99.4	92.3	100.0	97.4	91.7	480.8	+ 8.8
Lake	36	89.5	91.4	99.5	99.0	100.0	479.4	+ 8.8
St. Johns	36	92.4	90.9	98.8	97.3	100.0	479.4	- 4.6
Manatee	38	84.6	96.8	99.4	98.3	100.0	479.1	+ 2.5
Okeechobee	39	91.7	89.9	100.0	97.1	100.0	478.7	+38.4
Hamilton	40	93.0	84.9	100.0	100.0	100.0	477.9	+17.1
Charlotte	41	92.4	96.5	96.5	100.0	91.7	477.1	- 6.7
Hendry	42	83.2	98.7	100.0	94.9	100.0	476.8	+ 1.5
Flagler	43	94.4	94.1	100.0	100.0	83.3	471.8	+ 6.0
DeSoto	44	98.5	100.0	99.4	98.6	75.0	471.5	-10.2
Collier	45	89.3	100.0	100.0	98.8	83.3	471.4	+37.0
Wakulla	46	87.5	92.0	100.0	100.0	91.7	471.2	- 2.9
Gilchrist	47	85.7	81.3	100.0	100.0	100.0	467.0	+35.1
Holmes	48	94.1	85.8	94.9	100.0	91.7	466.5	- 2.0
Osceola	49	67.2	99.0	99.2	98.0	100.0	463.4	+ 8.7
Gadsden	50	74.3	90.5	99.2	99.1	100.0	463.1	+ 3.7
Madison	51	98.5	98.2	98.1	100.0	66.7	461.5	-32.3
Santa Rosa	52	90.8	92.2	99.6	94.4	83.3	460.3	+16.2
Monroe	53	82.2	89.2	98.8	97.8	91.7	459.7	+ 4.9
Calhoun	54	74.5	85.5	99.3	98.7	100.0	458.0	+ 0.8
Marion	55	71.2	94.6	98.9	99.2	91.7	455.6	+ 8.2
Union	56	70.2	95.5	98.2	100.0	83.3	447.2	- 2.5
Sumter	57	68.2	76.4	99.2	100.0	100.0	443.8	- 8.6
Liberty	58	66.7	100.0	100.0	100.0	75.0	441.7	+48.7
Jackson	59	70.4	78.3	99.8	99.6	91.7	439.8	- 6.4
Dixie	60	81.3	64.0	100.0	100.0	91.7	437.0	-21.5
Columbia	61	63.5	83.0	99.1	98.8	91.7	436.1	+11.0
Nassau	62	59.3	85.7	99.3	98.0	91.7	434.0	+ 2.4
Okaloosa	63	72.2	72.1	99.0	98.7	91.7	433.7	-39.2
Leon	64	75.4	77.5	99.1	97.8	83.3	433.1	-13.7
Pasco	65	65.4	95.8	99.6	99.4	58.3	418.5	-47.9
Lafayette	66	50.0	81.8	92.3	100.0	91.7	415.8	-58.3
Glades	67	0.0	100.0	100.0	100.0	91.7	391.7	-83.3

BUREAU OF MATERNAL AND CHILD HEALTH

L. L. PARKS, M.D., M.P.H.
Director

The work of this bureau is aimed at promoting better care for mothers and children through the county health departments (CHDs). This is done by making certain consultative services available to the counties and by making available funds from the Children's Bureau. These are used primarily to strengthen the nursing staffs of the CHDs. Funds and consultative services are also available to the special projects that are operated through grants from the Children's Bureau. These presently are the Migrant Project, the Developmental Evaluation Clinic and the Premature Demonstration Program, and are described later in this report.

The bureau has continued to make some supplies available to the CHDs, such as Lofenalac for the early phenylketonuria (PKU) cases if the patient is indigent. Planned parenthood supplies have been made available to maternity clinics when requested by the county health director, and 33 counties made at least one such request during the year. Medical textbooks on obstetrics, pediatrics, mental retardation, nutrition and school health program were made available to each director to build his CHD library. Most of them took advantage of the offer by requesting one or more books. To strengthen the Audio-Visual Library of the State Board of Health (SBH), selected new films on subjects pertaining to the health of mothers and children were purchased from funds available to this bureau.

There are many official and non-official agencies in the state which are concerned with the health of mothers and children, and members of the staff of the bureau were frequently called upon to take part in meetings or conferences with such organizations as the Florida Children's Commission, Florida Congress of Parents and Teachers (and local PTA groups), Florida Committee on Rural Health, State Department of Public Welfare, Florida Medical Association (and local medical societies), Florida Council for the Blind, Florida Cooperating Council for Children and Youth, State Department of Education, State Tuberculosis and Health Association, various nurses organizations, Sunland Training Centers, Florida Education Association and many others.

MATERNAL HEALTH

The provisional maternal mortality rate of 4.2 per 10,000 live births for 1962 shows a slight decline from the 5.0 rate recorded in 1961. There were 49 maternal deaths during the year, compared with 58 the previous year.

Final maternal mortality data revealed substantial improvement for both races. In 1951 the white maternal mortality rate was 7.1 whereas it was 2.2 in 1961; the nonwhite maternal mortality rate was 25.5 in 1951 compared with 12.7 in 1961.

There were 203 midwives licensed to practice during the year as compared with 217 for 1961, and there continues to be a decrease each year.

In 1951 the percentage of deliveries in hospitals for white births was 93.2; whereas, it was 99.0 per cent in 1961. The percentage of nonwhite hospital deliveries was 43.5 in 1951 as compared with 81.2 per cent in 1961. Physicians delivered 98.0 per cent of white babies in 1951 and 99.2 per cent in 1961, while physicians delivered 57.1 per cent of nonwhite babies in 1951 and 82.9 per cent in 1961. Midwives delivered 1.6 per cent of white babies in 1951 and 0.6 per cent in 1961. Midwives accounted for 41.8 per cent of nonwhite babies in 1951 and 16.1 per cent in 1961. This shows the gradual trend away from midwife deliveries and toward physician-hospital births. During the period from 1951 to 1962 the number of licensed midwives has dropped from 425 to 203.

The number of illegitimate births is increasing. In 1951, 8.15 per cent of births were illegitimate, and in 1961, 9.52 per cent illegitimate births. The proportion of white illegitimate births increased from 1.8 per cent in 1951 to 3.0 in 1961; while the nonwhite percentage rose from 24.1 to 27.6 in the same period, which means the nonwhite rate is about one in four.

The CHD maternity clinics are open to all expectant mothers who do not have their own physician. Fifty-eight counties operate such clinics. More and more counties are providing planned parenthood services through these clinics, and the interest in this service is growing.

INFANT AND PRESCHOOL HEALTH

In 1962 preliminary figures show there were 115,520 births, or a rate of 21.6 per 1000 population. For the same period there were 3259 infant deaths reported and the rate was 28.2 deaths per 1000 live births. Immaturity continues to be reported as the leading cause of infant death. The CHDs promote care of the immature and more emphasis is being placed upon preparing the home for their care prior to discharge from the hospital. This is in keeping with the philosophy of the teaching at the Premature Demonstration Center in Miami. Well baby clinics continue to be conducted in the majority of counties.

The total infant mortality rate was 33.1 per 1000 births in 1951 and it dropped to 29.1 in 1961; the white rate fell from 27.0 to 23.2 and the nonwhite rate declined from 48.4 to 45.3 during the 1951-1961 period.

The total number of immunizations reported by the CHDs show there were 90,704 immunizations for smallpox, 147,646 for diphtheria, 230,474 for tetanus, 91,942 for whooping cough and 312,104 for polio during the year. There was an increase in the number of immunizations given this year for all of the above diseases.

HEALTH SERVICES FOR MIGRATORY AGRICULTURAL WORKERS

The estimated peak population of migrants in Florida is 51,655. Palm Beach County is reported to have 10,400, Dade 8550 and Broward 5300. The number of migrants in other counties varies downward to a minimum of 110. The migrants remain in Florida from about November to May. These estimates are probably conservative because other estimates have been made that Palm Beach County alone has 15,000 to 20,000 at the peak of the season.

The health problems of the migrants vary from community to community depending upon many factors such as housing and local medical facilities. These problems do not differ materially from those of many other communities where there are medically indigent persons, except that in the area where there are migrants, there are many more medically indigent persons for whom to provide health services.

The Children's Bureau has continued to provide funds to support this project. The purpose of this grant is to extend health services to the agricultural migrants in Florida through the CHDs in counties where most of the migrants are located. Migrants coming into the state place a heavier load upon many communities, and outside assistance is needed. Local funds have not been sufficient to provide the necessary CHD personnel. The Children's Bureau special grant helped to provide 17 workers, some of whom are on a part-time basis, for work in four different counties. Efforts have been made to use the team approach to cover all the public health services needed by the migrants.

At the present health services are being extended from the Belle Glade area to other areas of Palm Beach County by means of mobile and night clinics. This service makes it possible for the migrants to work during the day and bring the mothers and children in for services after working hours. Additional personnel have also been made available to Dade, Lee and Collier Counties.

Health services to migrants include the usual services such as nursing supervision, medical and dental services, information on nutrition and social welfare services, and to a limited extent general health education, although the latter are not as fully developed as they should be at this time. In the opinion of the bureau medical care for the migrants is being provided as well as it can be in many areas among the low-income group, although there is the usual problem of persuading patients to come in early for diagnosis and treatment. There has been excellent cooperation on the part of local physicians. The CHDs license labor camps under state laws which means frequent inspections by sanitarians.

Health problems are only a part of the many problems of the migrant. It has been found that all agencies concerned such as schools, welfare agencies, voluntary agencies and others are rendering what services they can with their respective staffs. Experience has been that most of the farmers are working with the official agencies concerned with migrants. Efforts have been made to bring together farmers, crew leaders and persons in charge of securing migrant labor but this has not been very successful. However, much progress is being made in providing better health services to the migrants.

The Florida Committee on Rural Health, which is made up of representatives of the Farm Bureau Federation, Cooperative Extension Services, Medical Association, SBH and the Veterinary Medical Association, is very much concerned with the problems of the migrant. During its semi-annual meeting in December a tour was taken of Collier County to obtain firsthand knowledge of the problems of the migrants. It happened that the tour came on the day following the worst freeze Florida has had during this century and the members of the committee now better understand the migrants' problems. Collier County has a local migrant committee which is very active. Some of the members have been on this committee for a number of years. Dade County is in the process of forming such a committee. There is an increased interest in migrants because of the recent bill passed by Congress which may make additional funds available to improve their health.

TABLE 16

1962 POSTGRADUATE OBSTETRIC-PEDIATRIC SEMINAR REGISTRATION BY STATES

STATE	Doctors	Nurses	Other	Total
Alabama	12	2	0	14
Georgia	32	1	0	33
South Carolina	25	0	0	25
Mississippi	9	0	0	9
Other states	3	1	1	5
Florida	120	59	2	181
TOTALS	201	63	3	267

POSTGRADUATE OBSTETRIC-PEDIATRIC SEMINAR

This seminar has been held annually since 1951. It is held with the cooperation of the Bureaus of Maternal and Child Health of the State Health Departments of Florida, Georgia, Alabama, South Carolina and Mississippi; the Maternal Health Committee of the Florida Medical Association, the Florida Academy of General Practice and the Children's Bureau. Plans have been made to return to Daytona Beach for the 1963 meeting.

PREMATURE PROGRAM

Physicians, nurses, hospitals and CHDs working with some of Florida's smallest citizens—premature infants—have completed a year filled with activity designed to give these babies a better chance in life. They have been working together and with this bureau to improve care given premature babies in hospitals and in their homes. Approximately nine per cent of the babies born in Florida during the year, were born before term. Because they were immature, special care through the first months of life was essential to their survival. Premature infant care is highly specialized and expensive, since special equipment operated by specially trained personnel is imperative.

The training of physicians and nurses in this field had major attention during the year. Three five-day seminars were held for nurses at the Premature Demonstration Center, Jackson Memorial Hospital, Miami, and 93 nurses were enrolled in these classes. In addition seven carefully selected nurses were given three additional weeks of intensive training in premature infant nurseries at the Demonstration Center. They were chosen from large hospitals where a high percentage of the state's tiny infants were born or to which they were transferred at birth. The trainees then returned to their hospitals to teach other nurses and employees new techniques and procedures.

The training program is jointly sponsored by this bureau, Jackson Memorial Hospital and the University of Miami School of Medicine, with cooperation from local medical groups and hospitals, and with funds made available by the Children's Bureau. Students from several schools of nursing in addition to those from Jackson Memorial Hospital, medical students, interns and residents also receive training in premature infant care. One group of physicians from a nearby air base spent a week learning how to care for the tiny infants at the Center. Numerous other visitors from this and other countries have taken advantage of the training offered. One medical student from the University of Miami, who was interested in the care of the premature, was given further training and experience in this field during the summer months. He gave some valuable assistance in the study and follow-up of the premature. A pediatrician and a well-qualified nurse

have been available to hospitals for consultation on their problems or procedures. A series of 10 lectures, given as in-service training for nursery personnel at one large hospital, was judged valuable. A nurse-physician team received a scholarship to attend the Institute on Premature Care at New York Hospital-Cornell Medical Center. Both are now participating in the Florida training program.

To meet the need of small hospitals unable to release nurses for the five-day seminar at the Demonstration Center, regional one-day Demonstration Clinics are arranged, and during the year one was held in the Orlando-Winter Park area. More than 100 members of the nursing profession came from the immediate and adjacent areas to attend. An evening session for physicians drew an audience of approximately 30 pediatricians and general practitioners.

New technical textbooks have been provided for the libraries of CHDs so staff members may be kept abreast of the most modern methods of infant care. Publications likewise have had wide distribution through appropriate channels. Manuals of procedure prepared at the Demonstration Center have been supplied to hospitals for use by medical and nursing personnel in premature and newborn nurseries.

SCHOOL HEALTH PROGRAM

Joint responsibility for the health of the school age child is legally assigned to the State Board of Health and the State Department of Education (School Law 232-20). This responsibility is then relegated to the local CHDs and boards of public instruction for implementation (School Law 232-31). The activities of this bureau in the field of promoting physical examination on children in selected grades are now further strengthened by the new accreditation requirements for Level I, which are as follows: "First Grade Health Examination—All pupils during the first grade shall be required to present the results of a physical examination for recording on the cumulative health record form MCH 304." Primary responsibility for this requirement lies with the parent. Yet this regulation indicates the need of the CHD to cooperate with the local board of public instruction and the local medical society to satisfy the demand.

Recommendations for physical examination at age 11-13, junior high level, and age 15-18, senior high level, will be satisfied by the new standards for accreditation. "Grades 7-9 Health Examination—All pupils at some time during grades 7-9 shall be required to present the results of a physical examination for recording on the cumulative health record MCH 304. This may be done at the sixth grade level." "Grades 10-12 Health Examination—All pupils some time during grades 10-12 shall be required to present the results of a physical examination for recording on the cumulative health form MCH 304."

The activities in the area of school health records are now significant because this is now a part of the required physical examina-

tions. In an effort to facilitate the recording of future subsequent physical examinations, this bureau is in the process of developing a single sheet physical health record which can be easily inserted into the child's cumulative folder. This effort is in part responsible for the project by the State Department of Education to record all of this data on IBM cards to facilitate processing and reporting.

Screening procedures for hearing, vision and dental defects are fairly continuous over the state. Measuring of height and weight is a common practice in Florida's public schools. There is need for some uniformity in the screening practices but the greatest need is in the referral and follow-up procedure. The problem is educating the parent to do something about the defect that is detected in the child. In this respect PTAs whenever possible are advised to urge the parents to seek medical assistance for their child. The PTA groups have scheduled health workshops in an effort to encourage parents to understand and meet the responsibilities of health of their children.

The School Health Coordinators plan is another effort on the part of the public schools to encourage a better health program in the schools. The coordinator should in consultation with the principal establish a school health committee and policies for retaining key people and rotating others. The coordinator should be acquainted with existing health policies of the school and the county education and public health departments. The school health coordinator presently has a full teaching load and is many times unfamiliar with the new assignment. The bureau has been engaged in the process of giving information to these individuals to enable them to do a more effective job. The information given to this important member of the health team is accepted eagerly and enthusiastically.

This plan with definite guidance fills the void that is so apparent in the teaching of health. The elementary schools generally do a commendable job in health instruction, yet this plan can encourage more ingenuity in methods used by the teacher in presenting the subject with current and more attractive materials which will be in line with the needs and interests of the children in the community. The definite lack of health instruction in secondary schools can receive a great impetus if this plan is successful at this level. This bureau has exerted some effort to give this group of secondary level health coordinators some assistance to motivate them to improve their respective school's health program. Some progress is noted, but success is slow and much more is needed in this area before significant progress will be made. The team approach in this problem will insure the success of this program.

Public health nurses, insofar as personnel and other service programs permit, visit the schools regularly and routinely. Other services they perform in the school, beyond regular nursing duties, are serving as resource people to the teachers in all matters related to health. The

nurse aids the health coordinator in resolving specific health problems related to each school. Where there is a need felt for more services than the public health nurses can provide, the Gray Lady Program functions effectively, especially in the care of the sick child at school. More areas are receiving encouragement to make use of this worthwhile program.

The Florida School Bulletin, issued December 1962, shows that the school enrollment for 1961-62 was 1,131,502, which was a 5.18 per cent increase over the previous year. This is for grades from 1 through 12 and does not include kindergarten. There were 22,453 elementary school teachers and 19,274 teachers in the secondary schools, or a total of 41,727 teachers in the public schools of Florida.

TEACHERS PROJECT

The Teachers Project in Health Education conducted its seventh annual session with 57 teachers enrolled from 27 counties. This was the greatest participation by CHDs since the Project was initiated in 1955. In addition to CHDs, the Health Department of the City of Jacksonville volunteered to accept and provide field experiences for teachers working in Jacksonville schools.

The institutions providing the academic aspect of the project included Bethune-Cookman College, Florida State University and the University of Florida. The University of Miami did not participate in the 1962 project due to the sabbatical leave of the director of the course. The course directors expressed a feeling that the teachers enrolled displayed sincerity, interest in discovering new resources for their school health programs and deep concern for the health of their students. The distribution of teachers to the three schools was as follows: Bethune-Cookman College, 11; Florida State University, 16; University of Florida, 30.

The project was originally designed to familiarize teachers with health and welfare resources available to them in their school health programs. This objective remains paramount in the minds of all personnel involved. From a survey of schedules of activities prepared by CHDs for teachers, it would appear that a great many facilities and opportunities were presented the enrollees. Teachers were recruited from the counties in which they will teach in the next school year. Many teachers expressed amazement at the number and variety of the programs from which they could draw to improve the health and well being of the school child and his family. Teachers visited regional facilities of activities serving their county, such as tuberculosis hospitals, child guidance clinics, Sunland Training Centers, clinics operated by the Crippled Children's Commission and others.

Several teachers remarked that more helpful information had been obtained from this course than from any they had previously

taken. Favorable comments were made as to the pertinence of the material presented and its adaptability to their needs. They also reported pleasure at learning more of the activities of the CHDs and how its various programs might be utilized. CHD personnel stated that having the teachers in the health department was good for them as it tended to make them sharpen their "tools." They also felt that they had learned more of the problems of the teachers and ways in which they might work more effectively in the school health program.

The Teachers Project is a four-weeks course for which teachers earn three hours of credit to be applied in a variety of ways. Teachers spent four days on the campus of the university of their choice, two in the orientation and two in the evaluation phase of the project. Following orientation to all that would follow, the teachers returned to their respective counties for 14 days spent in field experiences. Consensus of all of those participating in the Teachers Project in Health Education in 1962 was that it was a success. It is planned to continue the project in 1963.

MENTAL RETARDATION

This bureau is concerned with the entire field of mental retardation and is active in certain aspects of the problem. Ongoing activities include orientation talks and programs at the several Sunland Training Centers. These are two-day programs held regularly in cooperation with the personnel of the Sunland Training Centers and the SBH in addition to representatives of the local communities interested in the problem. The coordinator of the program is a public health nurse whose headquarters are at the Sunland Training Center in Gainesville. Her duties are to arrange for speakers, programs, workshops, to act as consultant and liaison with the voluntary agencies and mental retardation associations in the state.

The main purpose of the program is to make professional persons aware of the facilities, what they offer and how they operate, what the limitations and strengths are and how the patients and inmates live, work and learn. With this knowledge, these people can return to the communities and inform their own people of the mental retardation institutions of the state from firsthand experience. Seven community programs were held with an attendance of 821 persons; 12 Orientation Programs at Sunland Training Centers—attendance 263.

Another activity is the early detection, diagnosis and treatment of mental retardation. This is usually accomplished through the well child conference and child guidance clinics held throughout the state as an integral part of the maternal and child health program. Children are brought to the clinics for routine screening procedures, immunizations and physical examinations. This gives an opportunity for the

child to be seen early and any defects or abnormality that are present has a chance to be noted and proper referral made. If an indigent case is found and the parents are unable to provide the necessary diet supplement for a PKU patient, this bureau has been making some supplies available to these cases.

A statewide registry is kept in the bureau of all known cases of PKU and through arrangements with the Bureau of Laboratories, confirmatory serum tests for diagnosis are made available to the clinics and physicians of the state. If a PKU case is found, other members of the family are urged to be tested and it is stressed to the parents the importance of having any future children born into the family tested in the first few weeks of life.

The biggest gap in the knowledge and work is the complete lack of knowledge of the causes of mental retardation and how to prevent it.

DEVELOPMENTAL EVALUATION CLINIC

This special project in mental retardation is located in Miami and during 1962 completed a total of 276 comprehensive evaluations. Seventy-seven were new patients admitted to service and 199 were re-evaluations of children seen in the previous year. By the end of the year the clinic had 262 active cases.

The clinic staff is composed of a part-time pediatrician who serves as director and a clinical psychologist, two psychiatric social workers, a public health nurse, speech specialist, Fellow in Pediatrics, secretary and clerk-typist. During the past year the requests for service have increased as has the caseload. Since most of these children are in the preschool age group, the needs of the patients and their families change from year to year. In addition, the children coming to the clinic are a very heterogeneous group representing a wide variety of problems and etiological causes. Because the clinic is seeing such a variety of problems, the diagnostic and counseling services which are offered by the clinic have to be extensive. It is estimated that approximately 50 per cent of the children seen at the clinic have multiple handicaps. Recommendations of the clinic to the parents have to be coordinated with existing community agencies. At times it is frustrating to find that optimal treatment facilities do not exist to carry out recommendations of the cases evaluated.

One of the original objectives of the clinic, the determination of what services are necessary and available for the proper training and guidance of the mentally retarded child and his family, continues to be worked on by all staff members in a variety of ways.

The public health nurse has continued to make home visits on all new patients admitted to the clinic for service. In addition to aiding some of the parents in a home training and supervision pro-

gram, conferences are held with the general nursing staff of the Dade County Department of Public Health who are carrying clinic patients as part of their caseload. Fifty-four patients are being supervised in a home training program by the clinic's public health nurse.

The Children's Bureau has continued to make funds available for a Fellowship in Pediatrics at this clinic. Two medical students and two psychology students were employed during the summer of 1962 and rendered some valuable service in addition to getting training in this field. The clinic has been used as a training field for the pediatric residents at the University of Miami School of Medicine as in the past.

CLARENCE M. SHARP, M.D.
Acting Director

During 1962 there was a major epidemic of St. Louis encephalitis in the Tampa Bay area resulting in a sizable research grant from the U. S. Public Health Service (USPHS) to study arthropod-borne encephalitis in this area. The Tampa Bay Regional Encephalitis Laboratory was established on the grounds of the Southwest Florida Tuberculosis Hospital in Tampa.

The USPHS has made a grant to this laboratory for five years. This disease outbreak had a tremendous effect upon the economic life of the St. Petersburg area. Florida is confronted with what may be the state's greatest public health problem in recent years. The Tampa Bay Regional Encephalitis Laboratory and its field study unit is attempting during the dormant season of the disease to find the weak link in the chain of host-vector-man and try to break it. Florida is in for a critical period, so far as its tourist economy is concerned, should there be additional outbreaks of the disease. This outbreak is discussed at some length under the Division of Epidemiology.

During the last six months of the year almost the full-time efforts of the State Board of Health's epidemiologist and the staff of the Division of Veterinary Public Health have been spent on this problem.

Poliomyelitis reached an all time low during the last year. There have been a significant number of both cases and virulent carriers of diphtheria, particularly among the nonwhite residents of Jacksonville. There has been a significant increase in cases of infectious hepatitis for the past five years.

Florida is still having a few cases of typhoid fever reported, but no major threat presented itself during 1962.

During 1962 no major outbreak of influenza was noted, although the Asian influenza virus has been reported.

Venereal diseases, particularly infectious syphilis, continue to increase and during 1962 the greatest number of infectious cases (1632) occurred during any year since 1949. Fortunately the USPHS is stepping up funds for an increased program in casefinding and control during the next year.

The State Board of Health was indeed saddened at the untimely death of James Scatterday, D.V.M., director of the Division of Veterinary Public Health.

There has been a slight increase in tuberculosis cases reported primarily as the result of the Cuban refugee problem in Dade County.

gram, conferences are held with the general nursing staff of the Dade County Department of Public Health who are carrying clinic patients as part of their caseload. Fifty-four patients are being supervised in a home training program by the clinic's public health nurse.

The Children's Bureau has continued to make funds available for a Fellowship in Pediatrics at this clinic. Two medical students and two psychology students were employed during the summer of 1962 and rendered some valuable service in addition to getting training in this field. The clinic has been used as a training field for the pediatric residents at the University of Miami School of Medicine as in the past.

CLARENCE M. SHARP, M.D.
Acting Director

During 1962 there was a major epidemic of St. Louis encephalitis in the Tampa Bay area resulting in a sizable research grant from the U. S. Public Health Service (USPHS) to study arthropod-borne encephalitis in this area. The Tampa Bay Regional Encephalitis Laboratory was established on the grounds of the Southwest Florida Tuberculosis Hospital in Tampa.

The USPHS has made a grant to this laboratory for five years. This disease outbreak had a tremendous effect upon the economic life of the St. Petersburg area. Florida is confronted with what may be the state's greatest public health problem in recent years. The Tampa Bay Regional Encephalitis Laboratory and its field study unit is attempting during the dormant season of the disease to find the weak link in the chain of host-vector-man and try to break it. Florida is in for a critical period, so far as its tourist economy is concerned, should there be additional outbreaks of the disease. This outbreak is discussed at some length under the Division of Epidemiology.

During the last six months of the year almost the full-time efforts of the State Board of Health's epidemiologist and the staff of the Division of Veterinary Public Health have been spent on this problem.

Poliomyelitis reached an all time low during the last year. There have been a significant number of both cases and virulent carriers of diphtheria, particularly among the nonwhite residents of Jacksonville. There has been a significant increase in cases of infectious hepatitis for the past five years.

Florida is still having a few cases of typhoid fever reported, but no major threat presented itself during 1962.

During 1962 no major outbreak of influenza was noted, although the Asian influenza virus has been reported.

Venereal diseases, particularly infectious syphilis, continue to increase and during 1962 the greatest number of infectious cases (1632) occurred during any year since 1949. Fortunately the USPHS is stepping up funds for an increased program in casefinding and control during the next year.

The State Board of Health was indeed saddened at the untimely death of James Scatterday, D.V.M., director of the Division of Veterinary Public Health.

There has been a slight increase in tuberculosis cases reported primarily as the result of the Cuban refugee problem in Dade County.

There has also been a slight increase in cases reported for the past four years. The greatest factor is a more efficient casefinding program since in many areas a 90 per cent increase in mass chest X-rays has occurred; plus the compulsory X-ray examinations in the Cuban Refugee Center in Miami. This has been responsible for an increase in the daily census at the State Tuberculosis Hospitals.

Some discussion is taking place concerning closing another tuberculosis hospital. This seems inadvisable at this time since it has been shown that admissions increased from 1605 patients in 1960 to 1677 patients in 1962. New active cases of tuberculosis increased from 1271 in 1959 to 1439 in 1962.

There has been considerable expansion in the Division of Radiological and Occupational Health due to several research and study grants from the USPHS. Regulations for control of radiation hazards have been printed in the Sanitary Code and the Governor has indicated his desire to have the State Board of Health regulate radioisotopes in agreement with the Atomic Energy Commission. The division has continued its surveillance of X-ray equipment as described in the report of the Division of Radiological and Occupational Health.

The cooperative field investigations of the outbreak of encephalitis between epidemiology, veterinary public health, laboratories, entomology, sanitation, local health and health education epitomize the team approach in the control of a major public health problem.

DIVISION OF EPIDEMIOLOGY

CHARLES M. WATERS, JR., M.D.
Acting Director

SPECIAL COMMUNICABLE DISEASE ACTIVITIES

Viral Encephalitis

For the second consecutive year, arbovirus activity was again apparent in Florida with a large outbreak in the four-county area (Pinellas, Hillsborough, Manatee and Sarasota) adjoining the Tampa Bay area. The outbreak began around the first of July and extended into the middle of October 1962. The cases occurred first in Pinellas County. There was a rapid extension from an initial central focus in St. Petersburg until eventually the whole county was involved. Approximately three weeks after the onset of cases in St. Petersburg, cases began to appear in Manatee, Sarasota and Hillsborough Counties.

Through the joint efforts of the State Board of Health (SBH); Pinellas, Manatee, Sarasota and Hillsborough County Health Departments (CHDs); the State Tuberculosis Board; and the Communicable Disease Center (CDC), U. S. Public Health Service (USPHS), a Tampa Bay Regional Encephalitis Laboratory was established in Sep-

tember to handle the tremendous quantity of laboratory specimens. At the time of this report, 566 individuals suspected of having St. Louis Encephalitis (SLE) had submitted specimens of sera for diagnosis.

Thus far, 190 cases with 17 deaths have been confirmed as recent cases of SLE. Of this total, 142 were in Pinellas, 15 in Manatee, 18 in Hillsborough and 15 in Sarasota, giving attack rates per 100,000 population of 35.4, 19.9, 4.4 and 17.8, respectively. Postmortem tissue specimens were received from 12 fatal cases, and from three of these, a virus was isolated and identified as SLE. Spinal fluid specimens from 148 individuals were examined for viruses and no isolation obtained. A tremendous amount of epidemiological information has been gathered thus far, but at the time of this report it has not been analyzed.

Extensive collections of avian and mammalian specimens were carried out by biologists, veterinarians and ornithologists from the SBH, CDC and the University of South Florida. No single species of bird or mammal was proven by virus recovery to be a reservoir of the infection. There were 17 different species of birds and five of mammals having demonstrable evidence of past infection. Over 60,000 adult female mosquitoes were collected in the four-county area, and *Culex nigripalpus* comprised 74 per cent of this total. Preliminary results reveal that SLE virus has been isolated from 33 pools of *nigripalpus*.

In Manatee and Sarasota Counties a serological survey of the population was carried out in October. Using the CDC quota sample technique, 549 households were selected and 916 sera were analyzed. The level of silent infection was 3.4 per cent, compared to approximately .02 per cent who developed clinical disease. Blood specimens were received on 229 household associates of suspected cases in the four-county area and 18 were found positive for antibodies against SLE, indicating exposure to the virus either recently or sometime in the past.

In addition to the four-county area, confirmed SLE cases occurred in the following counties: Orange, Sumter, Lake, Marion, one each and Polk, two. Also, a resident of Alachua County who had been exposed in Pinellas County died from SLE.

The epidemic investigation begun by the temporary laboratory and field team will be continued as a five-year project. The purpose will be to continue the careful field and laboratory studies into the complex life cycle of the SLE virus in this area of Florida and to identify those links which may be effectively destroyed or altered to prevent human infections and epidemics.

A total of 265 virus encephalitis cases were reported in Florida in 1962, which is almost equal to the total for the previous five years. There were 197 due to SLE. Post-infectious encephalitis accounted for 24 and 44 of the cases were of undetermined etiology.

Poliomyelitis

Poliomyelitis reached an all time low in Florida in 1962, when

only 14 cases were reported. Ten of these were paralytic. This compares with 41 reported in 1961 and 65 reported in 1960. From 1955-1959, the average annual incidence was 283 cases. There was one death from poliomyelitis during the year.

Eight of the cases were less than five years of age; only one adult was reported; two nonwhite were reported; and eleven were males. Of the 13 with known poliomyelitis immunization status, only four had been fully immunized and two of these had non-paralytic poliomyelitis.

Type III poliovirus was isolated from three cases and Type II was isolated from one.

Diphtheria

The year ended with a total of 44 reported cases of diphtheria as compared with 43 in 1961 and 73 in 1960. This gives an attack rate in 1962 of 0.8 per 100,000 population. One death occurred during the year in Duval County. This county, and more particularly the non-white sections of Jacksonville, continued to lead the state in the number of cases. All but one was nonwhite. The only white case occurred in a fully immunized child. Ninety-five per cent of the cases were either inadequately vaccinated or unvaccinated. Ninety-one per cent were under 15 years of age. There was no major outbreak as a majority of the cases occurred during the last six months of the year.

The only sharply localized outbreak occurred in Collier County in January which involved seven white persons; six children and one adult. All were unvaccinated. The adult case had cutaneous diphtheria. Due to the prompt and vigorous investigation, conducted by the Collier CHD, the outbreak was confined to three families.

More than three times as many nonwhite cases were reported as white. Eighty-six per cent were under 15 years of age. Reported cases were about equally distributed between the sexes. The clinical disease was not generally severe. All organisms isolated were of the mitis strain.

Infectious Hepatitis

Until this year there had been a steady annual increase in infectious hepatitis for the past five years, reaching an all time high of 1442 cases in 1961. A total of 909 infectious hepatitis cases were reported in 1962. In 1962, there were 18 deaths in the state resulting from clinically diagnosed infectious hepatitis.

No major epidemics were reported in the state. Again, person-to-person contact was probably the primary method of spread, though detail epidemiological studies were not made.

There was no seasonal pattern as the reported cases were fairly evenly distributed throughout the year. Attack rates for males and females were about equal. The attack rate for the white population was approximately twice as high as that for the nonwhite group. Infectious

hepatitis continued to occur more frequently in the younger age groups. Reported cases were distributed throughout the state.

Food Poisoning

During the year an attempt was made to obtain and stimulate better investigation and reporting of outbreaks of food-borne disease. Three major epidemics occurred. Approximately 1300 persons became ill in these outbreaks. One in Jacksonville involved 374 students eating lunch in an elementary school cafeteria. Based on clinical, epidemiological and laboratory studies, the probable cause was contamination of turkey salad with *Shigella* organisms. A second major outbreak involved 898 cases among students of a city school in Miami. The cause in the latter was traced to enterotoxin producing staphylococci contaminating turkey and giblet gravy served at the school cafeteria. The cook who prepared these food items had a paronychia which contained coagulase-positive staphylococci.

In Sarasota and Charlotte Counties, about 16 cases of an unusual shellfish poisoning were observed in individuals eating both raw and cooked oysters and clams obtained from the Gulf of Mexico. The toxin closely resembles "Ciguatera" which has been found in fish in the Puerto Rico-Virgin Islands area. The illness began from a few minutes to eight hours after eating the shellfish. The early symptoms were tingling around the face, burning sensation of the mouth, giddiness, inability to concentrate and occasionally watery stools. Later, victims had slow pulse, a sensation of tingling over the entire body and noticed a feeling of coldness. The symptoms persisted for about 24 hours, followed by complete recovery.

Some 300 other persons were reported as having food poisoning in 1962.

ROUTINE MORBIDITY SURVEILLANCE

Typhoid

Reported cases of typhoid increased from 21 cases in 1961 to 25 cases in 1962. The annual incidence of typhoid has not changed appreciably during the past five years.

Duval County reported approximately one-half of the cases. The Jacksonville City Health Department investigated six cases which occurred in one nonwhite family. The source of the typhoid organism was traced to a known carrier living in the area. An outbreak involving three white children was investigated by the Orange CHD, but the source was never determined.

The attack rate was slightly higher in the nonwhite population than in the white population. Attack rates by sex were about equal. Fifty-eight per cent of the cases occurred in persons under 15 years of age. No seasonal incidence was noted.

All typhoid carriers in the state were reviewed during 1962.

There are now 96 known carriers of whom 10 were added during the past year. Fifty-five have been phaged typed and the most prominent type is Degraded Vi.

Tetanus

A total of 29 tetanus cases were reported in Florida in 1962. This compares with 35 reported in 1961 and 28 reported in 1960. Eleven tetanus deaths occurred, of which three were in newborn infants. Tetanus is potentially preventable with immunization, but in spite of intensive campaigns aimed at increasing the immunization level in the population as a whole, the yearly incidence of tetanus cases has not decreased appreciably in Florida.

Reported tetanus cases are about equally distributed between the sexes. The racial incidence shows an attack rate per 100,000 of 0.3 for the white and 1.5 for the nonwhite. Fifty-nine per cent of the cases occurred in persons over the age of 40 years and 21 per cent in persons under four years of age. Three cases of tetanus of the newborn were reported and they all died. Geographically, there was no consolidation of cases in any one area.

Influenza

During the early part of 1962, a mild epidemic of probable influenza occurred in the state. The first occurrence of this disease was reported in Bunnell in January. Viral specimens were collected from throughout the state, but no isolation of influenza virus was made.

A total of 12,358 cases of influenza were reported in the state, as compared with 4176 in 1961. Approximately 83 per cent of the total occurred during the first three months of the year. The disease occurred throughout the state and no major urban epidemics were reported.

Bacillary Dysentery

Reported cases of bacillary dysentery increased slightly from 454 in 1961 to 506 in 1962. Approximately 40 per cent of the reported cases occurred in Duval County. About one-half occurred in children less than five years of age. The attack rate per 100,000 was higher in the nonwhite population; 1.9 versus 0.6. There was no apparent difference in attack rates by sex. A seasonal pattern was clearly shown as a large majority of the reported cases occurred during the summer months.

OTHER DIVISION ACTIVITIES

Poliomyelitis Immunization Survey

A mass oral poliomyelitis vaccine program was conducted in Hillsborough County during the first five months (January-May) of 1962 by the Hillsborough CHD. The program was designed to feed county residents from six months to 40 years of age two doses of a Lederle-Sabin oral trivalent polio vaccine, at intervals of eight weeks. A total of 177,000 doses were administered during the first feeding in Febru-

ary and 185,000 doses were given during the second feeding in April. A third feeding, consisting of 21,000 doses, was offered in May for those persons who had missed taking one dose. The net result was that in the target population (persons under 40 years of age), approximately 64,000 received the recommended two doses, and an additional 26,000 persons were given one dose.

In conjunction with the community oral poliomyelitis vaccine program, a special immunization survey was conducted in June, following the third feeding, to determine the poliomyelitis immunization level of Hillsborough County residents. This survey obtained information on the Salk immunization status prior to feeding of the oral vaccine and measured participation in the oral vaccine program.

Some 651 households comprising 2154 persons were interviewed in Hillsborough County. The results of the survey indicated that as social status rose so did the level of participation. However, the proportion of persons returning for second doses was highest among the lower socioeconomic group, followed closely by the upper and middle groups. This indicated a high degree of response, from all levels, to the educational program. The real success of the program was reflected in the improvement of the immunization level among the low socioeconomic group. At the end of the program, 92 per cent of upper socioeconomic group were protected with either or both Salk and Sabin vaccines. This compares with the previous Salk level of 82 per cent. The middle and lower groups had Salk immunization levels of 64 and 41 per cent, respectively, compared with 78 and 68 per cent for either or both vaccines following the Sabin program.

Of the age groups considered, school age children remain the best protected, followed closely by preschool and young adults. Large improvements were registered among the lower socioeconomic levels of each of these age groups.

VENEREAL DISEASE CONTROL

HARVEY M. BURNETTE
Administrator

The pattern of increase in infectious syphilis which began in 1958 continued in 1962. During 1962 there were 1632 cases of primary and secondary syphilis, the greatest number reported in a single year period since 1949. This represents an increase of 46 per cent over the 1118 cases reported in 1961, and is eight times greater than the 201 reported in 1958, the year in which the lowest number of cases was reported. Figure 1 shows this increase.

The increase has occurred in all age groups, in both sexes and in the white as well as nonwhite population; however, the most significant increase has occurred in the 15-34 age group.

The total number of syphilis cases reported for 1962, and this includes early latent, late, late latent and congenital, represented a 12.8 per cent increase over the number of comparable cases reported in 1961. This is the largest number of total syphilis cases reported in Florida since 1956. Table 17 shows breakdown of syphilis cases and rates, by year, 1940-1962.

Reported cases of gonorrhea for 1962 dipped slightly from 1961; however, this is not a true indication of a decrease in incidence. Due to the overwhelming increase in the more deadly early infectious syphilis, the program personnel devoted almost 100 per cent of all available time to the control of the latter disease.

Chancroid, granuloma inguinale and lymphogranuloma venereum remained at a rather static reported level. Very few cases are reported annually. These diseases are usually found among the lower socio-economic group where poor personal hygiene is practiced.

During 1962 this Program placed prime emphasis on finding infectious syphilis patients more rapidly. At the same time, the educational program and morbidity reporting was maintained.

Approximately 46.8 per cent of the total syphilis reported in 1962 was by private physicians, so it is necessary that a cordial working relationship be established and maintained with the medical profession.

An intensive effort was inaugurated to enlist the private physician and his professional societies and associations in the control effort. Each general practitioner was visited at least twice and all other physicians once during the year. The purpose of these visits was to show each physician how the county health department (CHD) employs various techniques to control venereal disease and to enlist his cooperation in reporting cases and permitting his patients to be interviewed. Eighteen hundred copies of the book, "Syphilis—Modern Diagnosis and Management," were distributed to physicians by the VD interviewer-investigators.

In cooperation with the U. S. Public Health Service, a cluster testing pilot study was initiated. Essentially, cluster testing is the complete epidemiological exploitation of every case of infectious syphilis accomplished by interviewing and reinterviewing each infectious syphilis case for sex contacts, suspects, acquaintances and associates. These people are then brought to examination.

During 1962 this program, in cooperation with the laboratory section, sponsored four two-day courses in the principles and proper techniques of darkfield microscopy. These courses were available to all physicians, venereal disease investigators and laboratory technicians.

The elimination of syphilis as a public health hazard is dependent

upon an intensive and aggressive educational program in the schools. Continued duties and responsibilities of the Negro health educator are maintained in an effort to control venereal infections through a long range plan of education. The emphasis of this program is on prevention rather than cure.

In a series of meetings with principals and teachers of high schools and occasionally junior high schools, the educator, with the cooperation of the CHD staff, presents the technical aspects of VD; the different types, history and methods of spread, diagnostic and treatment facilities available, methods of controlling through education and their place among the communicable diseases as a community problem. The educator suggests techniques for correlating the material within the school's curriculum, shows films and distributes educational materials. During 1962 the health educator worked in nine counties with teachers who represented 22 schools.

This Program is greatly concerned about teenagers where the biggest increase in the venereal diseases has occurred. It will take the combined efforts of health and community leaders to find more efficient ways to control these diseases with education as a focal point.

This Program is supervised by an administrator, two public health service representatives and health educator, a secretary, chief clerk and two central registry clerks. A staff of 33 full-time interviewer-investigators who have received special training in VD epidemiology is assigned to assist the CHDs.

The total number of syphilis cases reported for 1962, and this includes early latent, late, late latent and congenital, represented a 12.8 per cent increase over the number of comparable cases reported in 1961. This is the largest number of total syphilis cases reported in Florida since 1956. Table 17 shows breakdown of syphilis cases and rates, by year, 1940-1962.

Reported cases of gonorrhea for 1962 dipped slightly from 1961; however, this is not a true indication of a decrease in incidence. Due to the overwhelming increase in the more deadly early infectious syphilis, the program personnel devoted almost 100 per cent of all available time to the control of the latter disease.

Chancroid, granuloma inguinale and lymphogranuloma venereum remained at a rather static reported level. Very few cases are reported annually. These diseases are usually found among the lower socio-economic group where poor personal hygiene is practiced.

During 1962 this Program placed prime emphasis on finding infectious syphilis patients more rapidly. At the same time, the educational program and morbidity reporting was maintained.

Approximately 46.8 per cent of the total syphilis reported in 1962 was by private physicians, so it is necessary that a cordial working relationship be established and maintained with the medical profession.

An intensive effort was inaugurated to enlist the private physician and his professional societies and associations in the control effort. Each general practitioner was visited at least twice and all other physicians once during the year. The purpose of these visits was to show each physician how the county health department (CHD) employs various techniques to control venereal disease and to enlist his cooperation in reporting cases and permitting his patients to be interviewed. Eighteen hundred copies of the book, "Syphilis—Modern Diagnosis and Management," were distributed to physicians by the VD interviewer-investigators.

In cooperation with the U. S. Public Health Service, a cluster testing pilot study was initiated. Essentially, cluster testing is the complete epidemiological exploitation of every case of infectious syphilis accomplished by interviewing and reinterviewing each infectious syphilis case for sex contacts, suspects, acquaintances and associates. These people are then brought to examination.

During 1962 this program, in cooperation with the laboratory section, sponsored four two-day courses in the principles and proper techniques of darkfield microscopy. These courses were available to all physicians, venereal disease investigators and laboratory technicians.

The elimination of syphilis as a public health hazard is dependent

upon an intensive and aggressive educational program in the schools. Continued duties and responsibilities of the Negro health educator are maintained in an effort to control venereal infections through a long range plan of education. The emphasis of this program is on prevention rather than cure.

In a series of meetings with principals and teachers of high schools and occasionally junior high schools, the educator, with the cooperation of the CHD staff, presents the technical aspects of VD; the different types, history and methods of spread, diagnostic and treatment facilities available, methods of controlling through education and their place among the communicable diseases as a community problem. The educator suggests techniques for correlating the material within the school's curriculum, shows films and distributes educational materials. During 1962 the health educator worked in nine counties with teachers who represented 22 schools.

This Program is greatly concerned about teenagers where the biggest increase in the venereal diseases has occurred. It will take the combined efforts of health and community leaders to find more efficient ways to control these diseases with education as a focal point.

This Program is supervised by an administrator, two public health service representatives and health educator, a secretary, chief clerk and two central registry clerks. A staff of 33 full-time interviewer-investigators who have received special training in VD epidemiology is assigned to assist the CHDs.

FIGURE 1

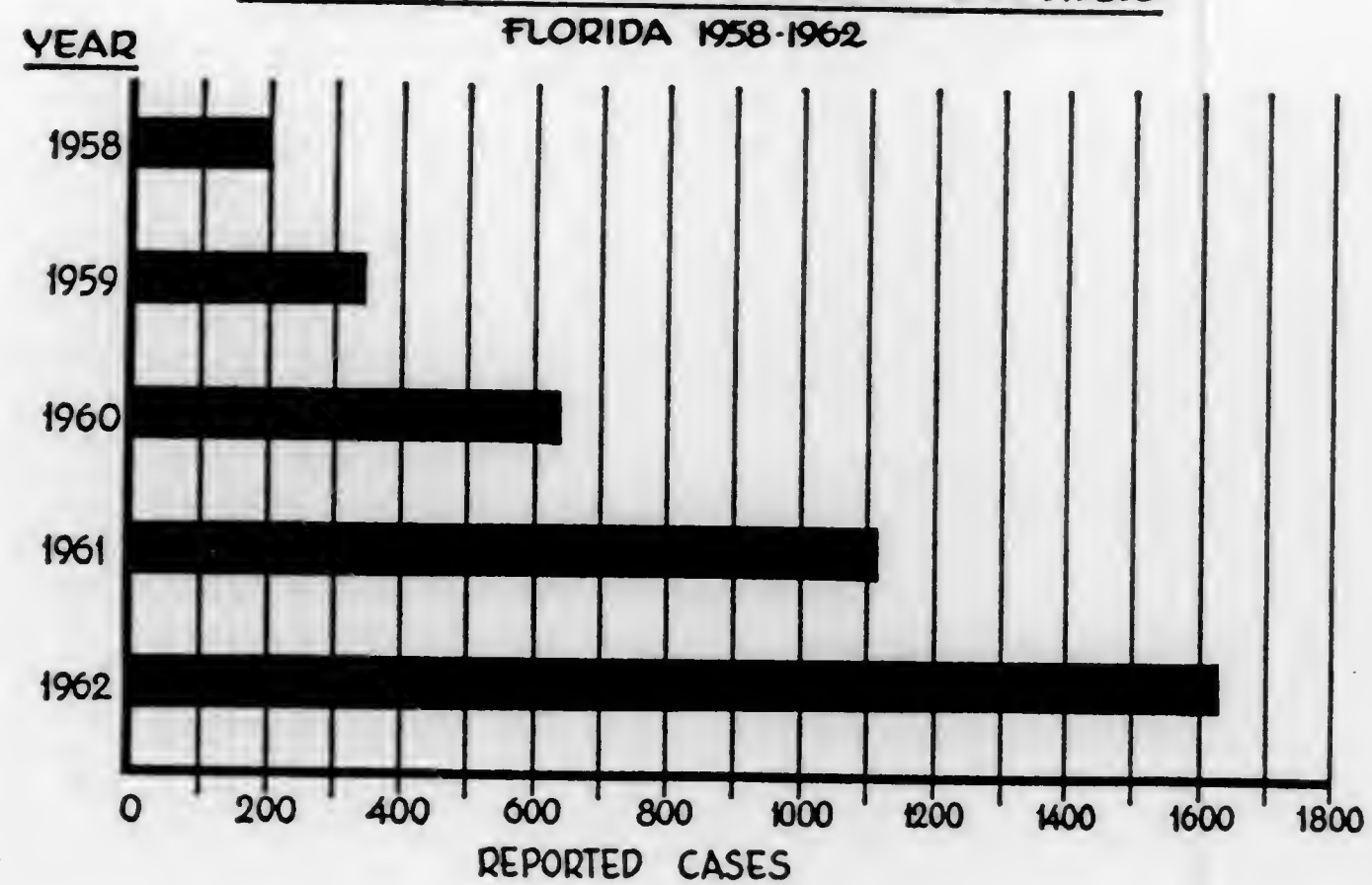
PRIMARY AND SECONDARY SYPHILIS

TABLE 17

**SYPHILIS CASES AND RATES PER 100,000 POPULATION
FLORIDA — 1940-1962**

Year	Population	Total	Primary and Secondary	Early Latent	Late and Late Latent	Con-genital	Not Stated
NUMBER OF CASES							
1962	5,349,900	6,004	1,632	1,505	2,676	191	
1960	5,012,100	4,115	639	1,047	2,254	175	
1955	3,662,000	5,541	394	1,329	3,616	202	
1950	2,797,100	10,714	1,495	3,982	4,795	442	
1945	2,273,900	16,034	2,054	7,039	5,210	487	1,244
1940	1,915,100	19,966	1,964	1,998	4,707	413	10,884
RATES PER 100,000 POPULATION							
1962		112.2	30.5	28.1	50.0	3.6	
1960		82.1	12.7	20.9	45.0	3.5	
1955		151.3	10.8	36.3	98.7	5.5	
1950		383.0	53.4	142.4	171.4	15.8	
1945		705.1	90.3	309.6	229.1	21.4	54.7
1940		1042.6	102.6	104.3	245.8	21.6	568.3

DIVISION OF RADIOLOGICAL AND OCCUPATIONAL HEALTH

EDWIN G. WILLIAMS, M.D.
Director

RADIOLOGICAL HEALTH

This division has the responsibility for overall direction and coordination of all activities related to radiological health carried out by the SBH. This includes a specific responsibility in the area of occupational exposure to ionizing radiation in cooperation with the Florida Industrial Commission. It has established a strong program in the area of radiation emergency capability and an ongoing program of survey and consultation in the diagnostic use of X-rays. In accordance with the provisions of the Florida Nuclear Code, the Governor submitted a letter to the Chairman of the Atomic Energy Commission indicating the desire to take further steps toward an AEC-Florida agreement for the transfer of the responsibility of the regulation of by-product, source and special nuclear materials in quantities of less than a critical mass as authorized by Public Law 86-373 and on February 21, 1962, designated the SBH as the state radiation regulatory agency.

Regulations

In order to provide a basis for a discontinuance of authority by the Atomic Energy Commission over the regulation of certain radioactive materials, the Board of Health revised its regulations for control of radiation hazards and adopted this revision as Section 170-J of the Florida Administrative Code, effective September 21, 1962.

Survey of X-Ray Facilities

The program of radiation exposure control for inspection of X-ray equipment and facilities was continued. In spite of a shortage of staff and the absence of personnel during an extended training course, 61 offices or installations using X-ray machines were surveyed.

Two dental student employees were assigned to the division by the USPHS from the Commissioned Officer Student Training and Educational Program for the summer. With their assistance, 252 dental units that had been surveyed in 1959 and 1960 were resurveyed to determine the extent to which recommended corrections had been made. Although the current procedure provides for adding filtration and collimation on the spot to machines that require it, these machines in Dade, Broward, Palm Beach and Pinellas Counties were surveyed before the filters and collimators were available to the division. In addition, surveys were made in 60 X-ray installations in Polk County as part of the X-ray exposure research program.

Other Radiation Users

The division continued to cooperate with the Atomic Energy Commission, Division of Compliance, participating in inspections of users of radioactive materials. There were at the end of the year 312 licenses in the state.

The division cooperated with local health, police and fire officials by providing, at their request, lists of users of radioactive material in their jurisdictions and notifications of new users. Sixteen such lists and notifications were issued through the various CHDs.

Radioactive Materials Control

As a part of the established policy and in preparation for an expanded regulatory program, the division continues to cooperate with the AEC Division of Compliance by participating in inspections of radioactive materials users.

Surveillance

A task force composed of representatives of the various SBH bureaus involved in environmental monitoring was organized to formulate recommendations concerning monitoring needs, program priorities and use of the laboratory services. This group met several times during the year and drew up the 1962 program. They recommended the preparation of a report presenting all environmental radioactivity data collected in Florida during 1962.

Throughout the year high-volume air sampling devices and precipitation collectors were operated as a part of continued participation in the state and national study of air-borne contamination and natural background. During 1962 the schedule for changing filters in the air sampler on a 24-hour basis remained effective. These were monitored for radioactivity and forwarded to the state laboratory in Orlando or to the USPHS laboratory in Washington for more complete and subsequent study. Precipitation was collected and measured by approved meteorological procedures, using the same schedule as for air sampling. During the year the modified procedure of submitting evaporated and liquid precipitation samples was continued. This program involved the handling of 429 samples of air and rain water.

During the year, the SBH established four air and precipitation surveillance stations which now brings the state program up to six stations, including the two national ones operated by the SBH and CHDs for the USPHS. The Florida stations are located at Pensacola, Tallahassee, St. Petersburg and Orlando.

The results of this surveillance network are compiled and made available to state health departments and other interested parties and individuals on the weekly basis, delayed only for the inclusion of the two stations operated for the National Surveillance Network.

X-Ray Exposure Study

In cooperation with the USPHS, professional groups using X-ray equipment as an aid to diagnosis and the CHDs, the division undertook a research study to: more adequately determine radiation exposure incident to the diagnostic use of X-rays; to develop an improved survey and consultation procedure; and to discover or develop a method of effectively advising the X-ray user in matters of radiation protection. This study is brought into its second calendar year of operation and it is expected to include the first phase of the study during 1963. This study has received national and international recognition.

Personnel Monitoring Service

The division continued to operate the personnel monitoring service for state and CHD personnel potentially exposed to ionizing radiation. A total of 1531 badges or approximately 128 per month were handled. Eleven possible overexposures were investigated and a number of recommendations were made for improvements in operating procedure and in the handling of the badges.

TABLE 18**SUMMARY OF MAJOR RADIOLOGICAL HEALTH ACTIVITIES**

Surveys of dental X-ray installations	
Offices	35
Machines	55
Surveys of medical X-ray installations	26
Visits to users of radioactive materials	21
Jacksonville Station, Radiation Surveillance Network	
Air samples collected and scanned	325
Rain water samples collected	104

Training and Related Activities

During 1962, training and related activities continued as prominent features of the division's program. The entire staff participated in planning and presenting the Occupational Health Course for Sanitarians which was given jointly with the USPHS in November.

Staff members attended a variety of informational meetings such as the Civil Defense Survival Course.

OCCUPATIONAL HEALTH

The Florida Industrial Commission, the Development Commission and the Chamber of Commerce continued to report that the state

is increasing in its rapid development as a highly industrialized state. In spite of this, the Florida Legislature has not appropriated funds which would enable an expansion of this portion of the health services. As a result of this dilemma, the State Board of Health (SBH) has requested outside assistance in the matter of evaluating its program in occupational health in an attempt to determine whether or not it is a proper component of a state health department's activities.

In Hillsborough County the special program is continuing as outlined in the 1961 Annual Report and is still supported, in large part, by the U. S. Public Health Service (USPHS). It is operated as an integral part of the county health department (CHD). It has as its basic goal the development of an occupational health program seeking to bring together all community activities and facilities, both public and private, which have a bearing on the health status of the occupied segment of the population. While not neglecting the disciplines of medicine, industrial hygiene and nursing, emphasis is being placed on the sociological and psychological aspects of worker health. Partly because of tradition and largely because of availability the industrial worker will comprise the bulk of population served during the early phases of the program. but in concept and as the activity develops, the services will be extended to all people who work.

Field Activities—General

The occupational health personnel made 58 visits to 44 establishments employing an aggregate of 16,865 persons. It is to be hoped that this number is somewhat less than for 1961. The acceptance of the division's engineer for graduate school training and the resignation of one chemist curtailed the activities of the occupational health section.

Close cooperation was continued with the Florida Industrial Commission and a number of investigations were made at their request. Typical investigations were: lead fumes in a rubber die manufacturing plant, cyanide and chromic acid mists in an electro-plating plant and hydrogen sulfide gas concentrations in a pulp mill.

Members of the division participated with personnel from the Dade County Department of Public Health in a noise study and survey conducted with the cooperation of the USPHS at the Miami International Airport. The study was made to determine noise levels produced by jet and piston-type aircraft. A large segment of the airport working population was included in the survey with emphasis placed on the passenger loading finger or ramp areas and the motor test cell areas. Also included in the survey were residential districts in Miami and Miami Beach which are subject to the noise produced by aircraft flying established flight patterns.

Requests from CHDs and state agencies accounted for 12 visits and covered such problems as a leaking natural gas line in the yard of

a private home, carbon monoxide from a faulty heating system, noise created by an air conditioner heat exchange pump, fumes created by soldering operations in an electronic parts manufacturing company and the investigation of an odorous and explosive gas present in a bar and lounge. One of the more unusual investigations was that made of a new office building which had been rented to a Federal agency. The fact that the building contained no windows or interior decorating to reduce lighting glare apparently produced a variety of physical symptoms among the employees. A decorative scheme using subdued colors and use of pictures was recommended to remedy the problem.

Miscellaneous

Rules and regulations governing the installation and operation of self-service coin-operated dry cleaning machines were prepared jointly with the Bureau of Sanitary Engineering. The regulations were approved and adopted August 11, 1962 by the Board of Health as chapter 170C-26 of the Florida State Sanitary Code.

Laboratory Activities

A total of 144 lead determinations were made. Biological samples of human fluids and tissues submitted by doctors, hospitals and industry comprised 110 of the total number of lead analyses.

Other types of samples received for lead analysis included environmental air samples collected by division personnel at a shipyard where Liberty type ships were being cut up for scrap by means of acetylene torches. A number of cases of lead poisoning among the employees had resulted from exposure to lead dust and fumes. Recommendations were made to reduce the hazard. Samples of water, ceramic ware, respirator filter pads, paint scale, homemade liquor and a coffee sample were among the variety of samples submitted for lead analysis.

Other laboratory determinations included tests made on biological fluids for zinc, the mercury content in a soil sample, the determination of the chromic acid mist concentration in the atmosphere of an electroplating plant and the sulfate ratios in urine samples submitted by a Federal agency.

Although the emphasis on the in-plant study of the phosphate industry in the Hillsborough-Polk county area was of a necessity reduced, the study to determine total fluoride and dust concentrations was continued with the exception of two plants. Seventy-eight environmental air samples were collected for fluoride analysis and 50 atmospheric samples for dust counting in the laboratory. With the recent development of an ion exchange method for the rapid determination of fluoride in urine samples, a study is planned to determine if correlation exists between the workers' exposure to fluoride in air and the urinary levels.

TABLE 19

OCCUPATIONAL HEALTH ACTIVITIES, 1962 FIELD ACTIVITIES

Number of Persons or establishments given service	62
Workers employed	16,865
Personnel Visits to Plants	
Self-initiated	11
Requests or complaints	23
Agency referrals	12
Revisits	11
Total	57
Services Rendered	
Routine inspection	12
Industrial hygiene survey	5
Technical study	13
Consultation	36
Follow-up	12
Discuss Report	9
Non-occupational investigations	9
Total	96
Field Determination of Atmospheric Contaminants	
Combustible gases	9
Carbon monoxide	7
Carbon dioxide	1
Hydrogen sulfide	7
Oxygen	1
Styrene	8
Acetone	4
Ammonia	4
Cyanides	2
Sulfur dioxide	6
Total	49
Physical Conditions	
Noise measurement	96
Relative humidities	26
Ambient temperatures	26
Miscellaneous	5
Total	153

SAMPLES COLLECTED FOR LABORATORY ANALYSIS

Fluoride in air	78	Bacteria in air	17
Dust in air	50	Chromic acid mist	2
Total	147		

LABORATORY ACTIVITIES

Materials	Type Sample	Source	Analyses
Lead	Human fluids and tissues	Doctors, hospitals and industry	110
	Ceramic ware	State and local agencies	2
	Paint scale	Hospitals and industry	9
	Respirator filter pads	Industry	12
	Water	County health department	1
	Coffee	State agency	1
	Atmospheric	Industry	19
Zinc	Human fluids	Doctors and hospitals	3
	Fluorides	Industry	68
	Sulfates	Federal agency	8
	Chromates	Industry	2
	Dust	Industry	51
Mercury	Air	Private	2
	Soil	Miscellaneous	19
Total			307
Reagents, Blanks, Controls and Standards			186
Total			493

TABLE 20
OCCUPATIONAL DISEASE REPORTS — 1962
 (Received through Florida Industrial Commission)

Dermatitis by cause:		272
Agricultural chemicals	21	
Cement	49	
Detergents	35	
Paints	11	
Seafoods	9	
Plant	24	
Chemicals	42	
Citrus fruit	17	
Larva migrans	3	
Miscellaneous	61	
Systemic Poisoning by cause:		91
Parathion	67	
Other agricultural chemicals	6	
Miscellaneous	18	
Conjunctivitis—Welders		65
Infectious hepatitis		3
Lead poisoning		10
Miscellaneous diseases		10
Total		451

DIVISION OF TUBERCULOSIS CONTROL

DWIGHT J. WHARTON, M.D.
 Director

The primary function of this division continues with only minimal change in the past few years. Emphasis is given in assistance to county health departments (CHDs) in their efforts in case detection. Treatment of active infectious cases of tuberculosis was the major recommendation of the Arden House Conference on Tuberculosis in 1959 and treatment can be given only after detection of cases needing treatment. If detection, treatment, isolation during infectivity and follow-up is adequate, tuberculosis control will be adequate.

Assistance to CHDs consists of services of five mobile 70 mm photo-fluorographic X-ray units, providing X-ray film for case detection and follow-up, interpretation of X-ray films when requested, supplying PPD for tuberculin testing programs, supplying drugs primarily for continuation of treatment beyond hospitalization and assisting in record keeping of cases of tuberculosis.

MORTALITY AND MORBIDITY

Table 21 gives data on mortality and morbidity for the past 10 years. In years past the death rate was considered to be the most accurate index of tuberculosis control since it had few variables. There has been a marked change in the pattern of tuberculosis deaths in the past decade. In 1952 the age group, 60 years and older, accounted for

only 37 per cent of total tuberculosis deaths while at the present this group is charged with 60 per cent of these deaths. Today deaths of the young are usually in those who have had no treatment or were moribund when treatment was started. In senior citizens many tuberculosis deaths are related to tuberculosis but not necessarily associated with active disease. It is gratifying to note the decline in death rate but it no longer has the same meaning in regard to tuberculosis control that it formerly had.

There has been an increase in the total number of newly reported active cases of tuberculosis in each of the past four years and the trend is shown in Table 21. Two factors influence the rise of new cases reported this year: new cases found in refugees from Cuba and a rise in the reported new cases of primary tuberculosis.

Morbidity statistics which are assembled at the end of a year are subject to revision with later information. The 1961 Annual Report showed 1359 newly reported cases of active tuberculosis. As these were given further study in 1962 it was found that 41 of these did not have tuberculosis which reduced the total to 1318 for 1961.

CASE DETECTION

Tuberculin testing by CHDs continues to increase each year with 73,573 tests reported this year. In some counties testing is done on a wide scale among school children while in others it is directed to contacts and associates of active cases and to areas of high tuberculosis incidence.

The Cuban Refugee Center in Dade County receives the large number of Cubans who seek refuge in this county. The Dade County Department of Public Health provides physical examinations, including chest X-rays, for these refugees and approximately 69 of these were reported as having active tuberculosis. Continued examinations will reveal disease in those already here as well as those who arrive in the future.

There has been further use of the state-operated mobile X-ray units in doing one or two day single locality X-ray screenings. This serves the purpose of reaching contacts, foodhandlers and others who, in the past, have shown a higher than average incidence of tuberculosis. The result of 70 mm X-ray screenings by state and county X-ray units is reported in Tables 23 and 24. X-ray surveys have been reported on an annual basis and there has always been inadequate time to have a full follow-up on work done near the end of the year. The 1961 Annual Report showed 82 cases found by state-operated X-ray units. Since preparation of that report 18 additional cases have been reported which increased the total of 100 new cases.

The finding and reporting of pathology other than suspected tuberculosis are continued. There were 810 instances where tumor was reported and many of these were found to be carcinoma. Cardiovas-

cular pathology was reported 2342 times and 6954 instances of other pathology reported.

OTHER X-RAY SERVICES

The services of a portable 14 X 17 X-ray unit was continued for those CHDs without X-ray facilities, thus all counties in the state have chest X-ray facilities available.

Processing and interpretation of X-ray films for CHDs have been continued.

ACTIVITIES OF COUNTY HEALTH DEPARTMENTS

The vast burden of case detection, hospital admission procedures and follow-up after hospitalization falls on the personnel of CHDs. No program of this kind reaches the stage where it will continue automatically due to the fact that the program deals with people. Many of these people are cooperative, but some are not. The movement of some patients without leaving a forwarding address results in time-consuming and often futile effort at further follow-up.

NEW ACTIVITIES

The U.S. Public Health Service (USPHS) sponsors special tuberculosis control projects and Congress has appropriated funds for this purpose. These special projects are intended for state, county or other political subdivision for the purpose of providing additional services to patients (other than in-hospital patients), contacts of patients, diagnostic services and selected casefinding activities.

In January a meeting in Miami of personnel of the Dade County Department of Public Health, USPHS and this division was held to make plans for a special tuberculosis control project in Dade County. The plans were completed, submitted, approved and the project placed in operation early in the year. This provided a physician, nurses, clerks, a laboratory technician and a X-ray technician, all of whose full-time efforts are used to augment tuberculosis control procedures already in effect in Dade County. This project has been very successful and is being continued on an annual basis subject to available USPHS funds and future need for these services.

Similar projects were planned for the City of Jacksonville and Hillsborough County. The Jacksonville project was not completed. The Hillsborough project has been approved and becomes operative in January 1963.

During the summer months a project was carried out in Hardee County on community organization for a mass chest X-ray survey. Sponsors were the SBH, Florida Tuberculosis and Health Association, Hardee CHD and the Hardee County Tuberculosis and Health Com-

mittee. One result of this survey was an increase of more than 90 per cent in individuals having chest X-rays in this survey compared to previous surveys in the same county.

The statewide active case study started in early 1961 is nearly completed and a report should be available in 1963.

CENTRAL CASE REGISTER

Central Case Register data are shown in Tables 25 and 26.

The number of new active cases reported each year is a good indicator of the trend of the tuberculosis problem. It is not an indicator of the caseload of the CHDs. Case supervision is given for life to those having active or quiescent diseases. Supervised follow-up is given to inactive cases until the time of inactivity reaches three years, and when the period of previous activity is added the total supervision usually exceeds four years. Supervised follow-up for primary tuberculosis is continued until two years inactivity is reached. Non-pulmonary tuberculosis usually receives follow-up from facilities other than the CHDs but the caseload includes these. In 1962 there were 246 persons reported to this state from other states and these are added to the caseload. The caseload also includes 56 newly reported inactive cases who will be followed, mostly on a voluntary basis.

During 1962 the period of supervised follow-up for inactive cases was reduced from five to three years after inactivity had occurred. A five year review of inactive cases showed that the greatest number of reactivations occurred in the first year. During the second and third years these were fewer but still a significant number of reactivations. After the third year there were no very great differences in the number of reactivations yearly up to the tenth year. Those who have cooperated in supervised follow-up for three or more years may be relied on to cooperate in follow-up on a voluntary basis. This voluntary follow-up continues indefinitely although it is not reflected in register caseload.

The work load of the case register is increased by the follow-up of persons who have had unclassified mycobacteria isolated from their sputum. There are 570 cases who have had tuberculosis due to *M. tuberculosis* and these plus 1612 others have had cultures positive for unclassified mycobacteria.

There are 183 patients resident of Florida mental hospitals and 78 resident in prisons. These receive care in the institution concerned but are recorded in the case register.

UNCLASSIFIED MYCOBACTERIA

A study to investigate the epidemiology of pulmonary disease associated with isolation of unclassified mycobacteria was begun in the

Division of Epidemiology in 1958. This division has had no formal connection with this work but since this chronic pulmonary disease and pulmonary tuberculosis have so many aspects which are similar a brief summary of results is given here.

By the end of 1962 these bacteria had been isolated from material from 2182 individuals. Isolations range from a single colony on one culture only, up to repeated cultures with profuse colony growth. These organisms were first isolated in one tuberculosis hospital but later were found in specimen cultures from many areas. Recently they were isolated from such extra-human sources as air, soil, water, ice and vegetables. Extensive, well controlled tuberculin testing was done with tuberculins from human and atypical mycobacteria.

This is a long range study and definite answers are still in the future. However, it is already shown that unclassified mycobacteria are widely distributed in extra-human areas in addition to human sources.

No authentic instance of human to human transmission is yet known. It seems reasonable to assume that such transmission must be exceedingly rare if indeed it occurs at all. Until definite proof is obtained on this point individuals who repeatedly excrete these bacteria in sputum should refrain from intimate contact with children.

TABLE 21
NEW ACTIVE TUBERCULOSIS CASES AND TUBERCULOSIS
DEATHS WITH RATE PER 100,000 POPULATION
BY RACE, 1953 — 1962

YEAR	Cases Reported	Case Rate	TOTAL DEATHS		WHITE		NONWHITE	
			Deaths	Rate	Deaths	Rate	Deaths	Rate
1962	1,439	26.9	*215	4.0	*136	3.1	* 79	8.3
1961	1,359	26.4	217	4.2	146	3.4	75	8.1
1960	1,295	26.2	205	4.2	128	3.2	78	8.3
1959	1,271	26.5	233	4.9	161	4.3	65	7.4
1958	1,553	34.4	287	6.4	193	5.4	94	11.1
1957	1,716	40.8	257	6.0	165	4.8	92	11.5
1956	1,976	50.9	244	6.3	156	4.9	88	12.0
1955	1,786	51.7	281	7.7	175	6.0	106	14.6
1954	1,912	54.9	283	8.1	159	5.7	124	18.1
1953	1,824	58.5	303	9.7	171	6.9	132	20.7

*Preliminary totals

TABLE 22

NUMBER AND PERCENTAGE OF REPORTED ACTIVE CASES OF TUBERCULOSIS BY STAGE OF DISEASE, RACE AND SEX, AND SOURCE OF REPORT, FLORIDA, 1961-1962

Stage of Disease, Race and Sex, Age, and Source of Report	1962		1961	
	Case	Percent	Case	Percent
TOTAL ACTIVE CASES	1439	100.	1359	100.
STAGE OF DISEASE				
Primary	136	9.5	87	6.4
Minimal	169	11.7	166	12.2
Moderately advanced	527	36.6	537	39.5
Far advanced	476	33.1	419	30.9
Non-pulmonary	94	6.5	72	5.3
Not stated	37	2.6	78	5.7
RACE AND SEX				
White male	567	39.4	575	42.3
White female	264	18.4	218	16.0
Nonwhite male	405	28.1	334	24.6
Nonwhite female	202	14.0	230	17.0
Not stated	1	0.1	2	0.1
AGE				
Under 5	89	6.2	63	4.6
5-14	64	4.4	45	3.3
15-24	103	7.1	114	8.4
25-44	495	34.4	467	34.4
45-64	483	33.6	454	33.4
65 Plus	194	13.5	194	14.3
Not stated	11	0.8	22	1.6
SOURCE OF REPORT				
Health departments	698	48.5	610	45.0
Sanatoria	103	7.2	112	8.2
Private physicians	407	28.3	392	28.8
General Hospitals	95	6.6	110	8.1
Death certificates	32	2.2	27	2.0
Veteran's hospitals	53	3.7	40	2.9
State Prisons	10	0.7	7	0.5
State mental hospitals	15	1.0	43	3.2
Other	26	1.8	18	1.3

TABLE 23

RESULTS OF 70mm X-RAY SCREENINGS, 1962

SCREENING UNITS	70mm X-RAYS		FOLLOW-UP STUDIES							
	Total X-Rays	Definite or Suspected Tuberculosis	FINDINGS			NEW CASES FOUND BY STAGE				
			Percent Follow-up ¹	New Cases	Diagnosis Reserved	Minimal	Moderately Advanced	Far Advanced	Other ²	
TOTAL	718,155	5,499	82.6	265	710	51	120	82	12	
Alachua HD	9,402	44	100.0	4	0	0	1	3	0	
Baker Sur.	928	12	100.0	0	0	0	0	0	0	
Bay Sur.	10,344	53	100.0	3	11	0	1	0	2	
Bradford Sur.	2,289	12	100.0	0	1	0	0	0	0	
Brevard Sur.	15,979	77	93.5	1	10	0	0	0	1	
Broward HD	47,589	366	98.4	24	173	2	3	15	4	
Charlotte Sur.	2,767	13	100.0	1	2	0	0	1	0	
Clay Sur.	3,120	11	100.0	0	1	0	0	0	0	
Collier Sur.	5,528	29	79.7	1	2	0	1	0	0	
Columbia Sur.	1,865	10	40.0	1	0	0	1	0	0	
Dade Sur.	6,219	28	89.3	3	0	0	1	2	0	
Dade HD & Others	135,123	1813	98.1	32	155	1	15	16	0	
DeSoto Sur.	4,543	37	73.0	1	1	0	1	0	0	
Duval Sur.	23,807	119	100.0	11	19	1	1	3	0	
Duval HD	4,243	18	Follow-up not available							
Duval Co. Jail	1,930	29	65.5	2	0	0	2	0	0	
Jacksonville HD	26,457	310	100.0	19	33	5	4	10	0	
Escambia Sur.	17,841	75	100.0	10	6	0	9	1	0	
Escambia HD	11,622	42	100.0	8	6	0	3	1	0	
Flagler Sur.	630	5	100.0	0	1	0	0	0	0	
Franklin Sur.	1,683	11	100.0	1	1	0	1	0	0	
Gadsden Sur.	8,136	52	53.8	5	4	0	5	0	0	
Gadsden HD	1,424	8	Follow-up not available							
Gilchrist Sur.	357	3	33.3	0	0	0	0	0	0	
Glades Sur.	849	6	100.0	0	1	0	0	0	0	
Gulf Sur.	2,456	12	100.0	1	2	0	1	0	0	
Hamilton Sur.	1,067	16	100.0	1	6	0	0	1	0	
Hardee Sur.	2,930	18	33.3	1	2	0	1	0	0	
Hendry Sur.	2,158	13	100.0	1	2	0	1	0	0	
Highlands Sur.	5,218	36	100.0	5	3	4	1	0	0	
Hillsborough Sur.	28,679	219	47.5	16	26	10	4	1	1	
Hillsborough HD & Ass'n	67,871	465	Follow-up not available							
Indian River Sur.	6,548	30	63.3	0	4	0	0	0	0	
Jackson Sur.	8,542	79	92.4	2	33	0	2	0	0	
Lake Sur.	13,037	66	100.0	5	15	2	2	1	0	
Lee Sur.	16,714	50	98.0	1	12	0	0	1	0	
Lee HD	157	1	100.0	0	0	0	0	0	0	
Leon HD	12,375	65	100.0	5	8	2	1	2	0	
Levy Sur.	583	4	100.0	0	0	0	0	0	0	
Liberty Sur.	663	6	100.0	2	0	1	1	0	0	
Madison Sur.	352	1	100.0	0	0	0	0	0	0	
Manatee HD	9,544	84	Follow-up not available							
Marion Sur.	1,051	4	100.0	0	0	0	0	0	0	
Martin Sur.	3,747	23	100.0	2	4	0	0	1	1	
Monroe Sur.	3,495	11	45.5	0	0	0	0	0	0	
Nassau Sur.	4,276	21	81.0	0	0	0	0	0	0	
Okeechobee Sur.	1,187	4	100.0	1	0	0	1	0	0	
Orange HD	15,658	80	88.8	12	23	4	4	3	1	
Osceola Sur.	2,517	23	73.9	0	4	0	0	0	0	
Palm Beach Sur.	9,330	52	90.4	15	8	1	10	4	0	
Palm Beach HD	17,425	90	100.0	13	16	2	2	7	2	
Pasco Sur.	1,988	8	100.0	0	1	0	0	0	0	
Pinellas HD	29,737	197	96.4	9	37	0	8	1	0	
Polk HD	27,447	129	90.7	13	31	4	7	2	0	
Putnam Sur.	4,517	25	52.0	0	6	0	0	0	0	
St. Johns Sur.	7,536	64	51.6	1	4	0	1	0	0	
St. Lucie Sur.	9,174	66	69.7	2	7	0	1	1	0	
Sarasota Sur.	1,414	4	100.0	1	0	0	0	1	0	
Sarasota HD	4,604	13	92.3	0	0	0	0	0	0	
Seminole Sur.	8,633	32	100.0	4	5	0	2	2	0	
Suwannee Sur.	912	9	88.9	0	2	0	0	0	0	
Taylor Sur.	3,286	11	100.0	2	3	0	2	0	0	
Volusia Sur.	24,417	82	98.8	5	10	0	4	1	0	
Wakulla Sur.	920	3	100.0	0	0	0	0	0	0	
Walton Sur.	683	9	100.0	2	0	1	0	1	0	
Mental Hospitals	6,683	158	100.0	13	3	4	9	0	0	
State Prisons	3,951	33	100.0	3	3	3	0	0	0	

1. Percent of follow-up is that reported to end of year. See Case Detection for additional information.
2. Other: Primary, military, and stage unknown.

TABLE 24
RESULTS OF STATE X-RAY SURVEY UNITS, 1962

RACE, SEX AND AGE	70mm X-RAYS		14"x17" X-RAY FOLLOW-UP						
	Total X-rays	Definite or Suspected Tuberculosis	New Cases	FINDINGS		NEW CASES BY STAGE			
				Diagnosis Reserved	Minimal	Moderately Advanced	Far Advanced	Other	*New Case Rate
TOTAL	295,548	1745	124	232	29	69	21	5	42.0
RACE AND SEX									
White male	110,813	797	47	101	10	27	8	2	42.4
White female	117,939	420	9	57	5	3	0	1	7.6
Nonwhite male	35,429	337	49	50	9	30	10	0	138.3
Nonwhite female	28,391	172	19	21	5	9	3	2	66.9
Not stated	2,976	19	0	3	0	0	0	0	—
AGE									
18-24	40,529	101	10	19	3	6	0	1	24.7
25-34	56,374	143	30	16	11	13	4	2	53.2
35-44	63,090	253	24	32	4	16	4	0	38.0
45-54	56,734	368	26	51	5	16	4	1	45.8
55-64	41,597	408	16	47	1	9	5	1	38.5
65 and over	33,384	457	17	66	4	9	4	0	50.9
Not stated	3,840	15	1	1	1	0	0	0	26.0

*Rate per 100,000 satisfactory 70mm X-rays.

TABLE 25
TUBERCULOSIS CASES IN CENTRAL REGISTER, BY COUNTY,
STAGE OF DISEASE AND PRESENT LOCATION OF
ACTIVE CASES, 1962

COUNTY	Total Cases	Pulmonary Tuberculosis				Non-Pulmonary	Active Cases			
		Active	Quiescent	Inactive	Primary		In Hospital	At Home by Sputum Status		
								Positive	Negative	None 1962
STATE.....	7694	1790	817	4765	250	72	1240	130	298	122
Alachua.....	153	19	13	111	10	—	10	4	4	1
Baker.....	15	3	2	9	—	1	2	—	—	1
Bay.....	105	22	1	79	1	2	18	2	2	—
Bradford.....	40	1	5	34	—	—	1	—	—	—
Brevard.....	112	27	12	71	1	1	20	2	4	1
Broward.....	494	98	41	326	24	5	72	8	11	7
Calhoun.....	28	6	3	17	2	—	3	—	1	2
Charlotte.....	27	5	2	20	—	—	4	—	1	—
Citrus.....	12	3	2	7	—	—	2	1	—	—
Clay.....	24	1	4	19	—	—	—	—	1	—
Collier.....	49	13	3	30	3	—	4	3	2	4
Columbia.....	59	7	1	51	—	—	4	—	2	1
Dade.....	1490	355	144	951	16	24	271	26	45	13
DeSoto.....	18	4	5	9	—	—	4	—	—	—
Dixie.....	3	2	—	1	—	—	2	—	—	—
Duval.....	689	175	72	410	26	6	130	10	25	10
Escambia.....	203	61	15	124	2	1	49	4	4	4
Flagler.....	6	2	1	3	—	—	2	—	—	—
Franklin.....	8	3	1	4	—	—	3	—	—	—
Gadsden.....	50	20	4	24	1	1	16	1	1	2
Gilchrist.....	5	—	1	4	—	—	—	—	—	—
Glades.....	3	1	—	2	—	—	—	—	1	—
Gulf.....	12	5	—	7	—	—	5	—	—	—
Hamilton.....	16	6	2	8	—	—	4	—	1	1
Hardee.....	16	4	2	9	1	—	3	—	—	1
Hendry.....	13	3	2	8	—	—	2	—	1	—
Hernando.....	11	5	2	3	1	—	2	—	3	—
Highlands.....	37	10	4	19	4	—	9	1	—	—
Hillsborough.....	680	208	79	370	19	4	111	15	56	26
Holmes.....	13	8	2	3	—	—	3	—	3	2
Indian River.....	28	3	8	17	—	—	2	1	—	—
Jackson.....	58	13	12	26	6	1	10	1	2	—
Jefferson.....	12	2	—	9	1	—	1	—	1	—
Lafayette.....	4	1	2	1	—	—	1	—	—	—
Lake.....	68	13	8	45	2	—	9	2	2	—
Lee.....	66	16	16	30	4	—	13	2	1	—
Leon.....	87	19	9	51	7	1	15	—	3	1
Levy.....	16	4	5	7	—	—	3	—	1	—
Liberty.....	11	5	1	5	—	—	4	—	—	1
Madison.....	21	5	4	12	—	—	4	—	1	—
Manatee.....	77	17	10	48	2	—	12	1	3	1
Marion.....	61	15	8	36	1	1	11	—	1	3
Martin.....	30	7	5	17	—	1	7	—	—	—
Monroe.....	35	9	5	21	—	—	6	1	2	—
Nassau.....	19	1	7	8	—	3	1	—	—	—
Okaloosa.....	49	17	7	23	2	—	10	—	4	3
Okeechobee.....	13	—	2	8	3	—	—	—	—	—
Orange.....	282	74	21	166	16	5	42	6	21	5
Osceola.....	28	6	8	12	1	1	5	—	1	—
Palm Beach.....	408	105	71	195	31	6	83	3	17	2
Pasco.....	37	8	6	21	1	1	5	1	—	2
Pinellas.....	607	127	57	411	10	2	60	18	40	9
Polk.....	322	68	33	188	31	2	48	5	10	5
Putnam.....	66	21	6	38	1	—	14	2	4	1
St. Johns.....	80	7	7	64	2	—	6	—	1	—
St. Lucie.....	124	19	16	85	3	1	14	1	1	3
Santa Rosa.....	20	5	2	13	—	—	3	1	—	1
Sarasota.....	117	17	8	90	2	—	10	2	3	2
Seminole.....	108	24	9	70	5	—	19	1	3	1
Sumter.....	28	7	2	17	1	1	6	—	—	1
Suwannee.....	35	6	4	24	1	—	2	1	2	1
Taylor.....	25	5	3	14	2	1	5	—	—	—
Union.....	9	1	2	6	—	—	1	—	—	—
Volusia.....	207	35	19	150	3	—	25	3	5	2
Wakulla.....	10	2	2	6	—	—	1	—	—	1
Walton.....	33	3	4	25	1	—	1	—	1	1
Washington.....	24	4	3	17	—	—	3	1	—	—
Fla. St. Prison.....	78	22	—	56	—	—	22	—	—	—

TABLE 26

TUBERCULOSIS CASE REGISTER STATISTICS, 1958-1962

Tuberculosis Cases by Activity, Location and Sputum Status	Number of Cases					Percent Distribution				
	1962	1961	1960	1959	1958	1962	1961	1960	1959	1958
TOTAL CASES IN REGISTER	7,694	9,627	10,135	10,918	12,404	100.	100.	100.	100.	100.
Active pulmonary	1,790	1,785	2,623	2,942	3,250	23.3	18.6	25.9	27.0	26.2
Quiescent	817	582	—	Not available	—	10.6	6.0	—	Not available	—
Questionably active	*	*	207	299	419	*	*	2.0	2.7	3.4
Inactive pulmonary	4,765	6,971	6,851	7,225	8,307	62.0	72.4	67.6	66.2	67.0
Primary	250	211	264	261	250	3.2	2.2	2.6	2.4	2.0
Non-pulmonary	72	78	190	191	178	.9	.8	1.9	1.7	1.4
ACTIVE PULMONARY	1,790	1,785	2,623	2,942	3,250	100.	100.	100.	100.	100.
Hospitalized	1,240	1,272	1,399	1,517	1,750	69.3	71.3	53.3	51.6	53.9
At home	550	513	1,224	1,425	1,500	30.7	28.7	46.7	48.4	46.1
ACTIVE CASES AT HOME	550	513	1,224	1,425	1,500	100.	100.	100.	100.	100.
Positive sputum	130	164	198	238	259	23.6	32.0	16.2	16.7	17.3
Negative sputum	298	222	605	651	726	54.2	43.3	49.4	45.7	48.4
Undetermined sputum	122	127	421	536	515	22.2	24.7	34.4	37.6	34.3

*USPHS Instructions—questionably active and activity not determined—not to be reported.

DIVISION OF VETERINARY PUBLIC HEALTH

WILLIAM G. WINKLER, D.V.M.
Acting Director

This division is responsible for those activities related to the control of animal diseases transmissible to man. It participates in planning, supervision and coordination of activities designed to eradicate or control animal diseases transmitted to man, either by contact or indirectly through food products, or by insect vectors.

Brucellosis—Seven cases of human brucellosis were reported this year. Each case was investigated for epidemiological evidence of source of infection. Five cases occurred in individuals associated with slaughterhouse operations, one case in a veterinarian occupationally exposed, and one remains undetermined. As in the past several years, in those cases where isolation of the organisms was accomplished, infection in each case was found to be due to *Brucella suis*. This is in keeping with the national trend showing an increase in the percentage in *B. suis* cases and a corresponding decrease in *B. abortus* cases.

A total of 266,974 cattle were tested for brucellosis this year. Five thousand two hundred and four reactors were identified. Assist-

ance was given to the State Department of Agriculture in this program of testing and vaccinating cattle.

Eastern Equine Encephalomyelitis—There were 34 cases of Eastern Equine Encephalomyelitis reported in horses in 1962. This represents only a fraction of the true total of EEE in horses this year. These figures are based on clinical diagnoses reported by practicing veterinarians. Continued action is necessary as in the past to stimulate immunization of susceptible horses.

Leptospirosis—There were 263 cases of animal leptospirosis reported this year in 19 cattle, 203 dogs and 41 miscellaneous animals, including wildlife. Two human cases were reported and epidemiological investigation revealed that one case probably resulted from contact with an infected dog; the source of the other case remains undetermined.

Mycotic and parasitic infections are probably the most prevalent of the zoonoses in Florida. Ringworm was reported in 114 dogs, 34 cats and four other animals. Hookworm (*Ancylostoma braziliense*) and (*A. caninum*) though not a reportable disease, is widespread in dogs and cats in Florida. Creeping eruption (*Cutaneous larval migrans*), caused by contact with the larva of these parasites, continues as a frequent problem in children, utility workers and others in close contact with the soil.

Piroplasmosis—Equine piroplasmosis, first reported in this country in Florida in late 1961, continues to be a problem. Over 100 cases have been reported in the state, spreading from the initial focus in southern Florida to now include the entire state.

Rabies—as always remains one of the most important zoonoses from a public health viewpoint. There were 72 laboratory confirmed cases in the state in 1962. This represents a slight increase over last year's total. Wildlife rabies continues to be of paramount importance. Only 11 of the positive cases were in domestic animals; the remaining 61 occurred in wildlife. There were no human cases again this year, although 419 complete doses of vaccine were distributed; 382 were brain tissue vaccine and 37 were duck-embryo vaccine. There were also 51 vials of hyperimmune serum distributed. The last reported human case of rabies in Florida occurred in 1948.

Tuberculosis—Bovine tuberculosis—(the incidence of tuberculosis in cattle) was much reduced this year, a total of 117 reactors reported as opposed to 237 the previous year. A total of 299,355 cattle were tested. The test and slaughter program of the Department of Agriculture was continued.

TABLE 27
CASES OF ANIMAL RABIES BY COUNTY,
MONTH AND SPECIES, 1962

County	Dog	Cat	Fox	Raccoon	Skunk	Bat	Horse	Bobcat	Total
TOTAL	5	5	4	39	3	14	1	1	72
Alachua				8					8
Baker				1					1
Bradford	1			2					3
Brevard				1					1
Collier		1							1
Columbia				1		1		1	3
Dade	1								1
DeSoto				1					1
Duval	2								2
Gilchrist						1			1
Hamilton				2					2
Hardee							1		1
Hernando					1				1
Highlands						1			1
Hillsborough						9			9
Jefferson				2					2
Lake		1		1					2
Leon				1					1
Madison				3					3
Marion			1	7	2	1			11
Orange			1						1
Osceola			1	1					2
Pasco		1							1
Pinellas	1								1
St. Johns				1					1
Sarasota		1							1
Sumter			1	3		1			5
Taylor				3					3
Volusia		1		1					2
MONTH									
January		1		4			1		5
February	1			2					4
March	1			4	2				7
April	1		3	2				1	7
May			1	1		4			6
June	1	2		1		1			5
July		1		5	1	3			10
August				6		3			9
September				4		2			6
October	1			6		1			8
November		1		3					4
December				1					1
TOTALS	5	5	4	39	3	14	1	1	72

BIOLOGIST'S REPORT

W. L. Jennings, Ph.D.

The biologist's effort in zoonotic investigation was divided between the continuing study of wildlife rabies and the effort to assemble data on Florida's arbovirus problem, especially in the Tampa Bay region.

Rabies control efforts occupied much less of the biologist's time during 1962. Assistance was given for a short time in Alachua County where a vicious dog pack was thought to be in contact with a rabid raccoon population. Rabies investigational work included experimental infections of rodent species which are abundant in the vicinity of sporadic rabid house cat cases. In these infections, virus isolates from salivary glands of rabid bats and rabid raccoons were compared. These experiments were designed to evaluate the potential of cat prey species as silent reservoirs of the virus which go un-noticed by our routine surveillance. Primary results of these experiments all indicated that of the five rodent species investigated, all are capable of transmitting virus, but none would evade detection in routine diagnosis if submitted as clinical specimens. All five species have been examined extensively in the past 10 years, both by routine examinations of individuals submitted and by intensive collecting in areas where sporadic rabies has occurred in house cats. In none of these collections was evidence of rabies infection discovered.

It was especially interesting to discover that gray squirrels, which have never been reported rabid in Florida, although more than 3000 have been examined routinely since 1953, were highly susceptible to infection with rabies virus, exhibiting exaggerated clinical signs in about half of the cases, and were easily diagnosed by all routine diagnostic methods used, including salivary gland inoculation into mice. It had previously been thought that gray squirrel bites presented little hazard to humans and that many attacks on children might be ignored, even though the biting squirrel escaped. This experiment suggests that rabid gray squirrels may exist sporadically under natural conditions and points out the necessity for continuing careful evaluation of all animal attacks in which the biting animal escapes.

Bat rabies continue to be a harassing and perplexing problem with so many cases reported in the state, nine of them in Tampa, where intensive educational effort was carried out warning people of the danger from handling sick bats and from failure to vaccinate pets which may contact moribund bats. At present there appears to be no effective control beyond education and effort to have all pets immunized against rabies.

A field study was undertaken in Marion County, which has a long history of enzootic rabies in bats, in several species of carnivores, especially raccoons, and has experienced several sporadic cases in cats and dogs. In cooperation with the National Rabies Laboratory, Com-

municable Disease Center (CDC), U.S. Public Health Service, carnivore species were trapped and examined for rabies virus and for evidence of past infection. The smaller mammals present were also collected alive, held in quarantine for three months, and then examined serologically for evidence of rabies infection. The results of this investigation, which is still incomplete, suggest that while the carnivores did show evidence of rabies infection, none of the small mammals gave any evidence of having experience with the virus in the past. Examination of 108 house cats from this area also gave no evidence that they had had any experience with the virus.

The investigation of the endemic rabies in raccoons continued to indicate that these animals are Florida's most persistent and insidious carriers of the virus. There was an apparent shift to the northward in geographic incidence of rabid raccoons reported. Whether these shifts indicate a spreading epizootic which is moving to the northward and dying out in the southern peninsula, has not been established. There continues to be considerable variability in the surveillance system which may account for apparent changes in the activity of the virus in raccoons. Titrations of salivary glands from all the rabid raccoons submitted during the year were carried out and indicate that these animals may be effective transmitters of the virus. Results of all these studies are being prepared for publication.

Arbovirus outbreaks continued to require an increasing amount of investigational effort. The epidemic in the Tampa Bay area during August and September was investigated intensively and more than 1400 sera were collected from birds and mammals which were suspected of being involved in the circulation of this virus. Cooperative efforts with the CDC field team were continued through December and yielded considerable information on the activity of St. Louis encephalitis (SLE) virus in Florida. Chicken flocks were examined throughout the state and the serologic results show that this virus circulates in nature in most of peninsular Florida. Considerable information was gathered on the virus of eastern encephalitis, western encephalitis, and a Cache Valley-like virus, incidental to the investigation of SLE.

MILK SANITATION SECTION

S. O. NOLES, M.P.H.

LEWIS W. WILLIS, M.P.H.

The two major objectives in milk and milk products sanitation, safety and quality, have been the motivating factors underlying the program of activities of the milk consultants throughout the year.

The objective of safety of the products assumes a different role than it did in the earlier years of milk sanitation. In past years the primary purpose from this standpoint was the breaking of the chain of infection, or transfer of disease, from animal to man, or from man

to man, the dairy products being the transfer media. In recent years new problems have arisen in the form of presence of non-biological contaminants. Some such contaminants are insecticides, rodenticides, antibiotics, radionuclides, weed killers and others. Prevention of the presence of these contaminants has two things in common: detecting their presence and preventing continued recurrence. This is where all similarity of control measures ceases. All the myriad approaches to proper control measures and following these activities to satisfactory conclusions have increased tremendously the amount of work necessary to provide for the safety of the products involved.

Likewise, in order to promote the consumption of dairy products in maintenance of a well-balanced dietary intake by the consumer, the pleasing flavor and general acceptability must be maintained. Changing trends of production methods, age of milk, adequacy of proper handling and refrigeration—these and a great number of other factors must be watched carefully and properly corrected when problems develop. One example can illustrate the complexities which may arise: Milk plants are usually cramped for space for adequate storage of milk being delivered from the farms. During the past years a storage tank was designed for relieving this cramped condition to some degree. It is a cylindrical, vertical storage tank, called a "silo" tank. It can be designed with a diameter to fit the space available at a given milk plant. Volume of storage can then be attained simply through controlled height. A given tank might have a height of 20, 30 or even 50 feet.

Obviously, such a storage tank creates a number of problems in respect to cleaning, ease of inspection, proper mixing of milk, emptying, openings in protected areas, venting and so forth—all these factors contributing to a greater or lesser degree to flavor of the products and whether it will be acceptable to the consumer.

Other items which fall under one or both objectives are: Introduction within the state of plastic-coated containers (mostly half-gallon), thus eliminating the paraffin-coated carton; greater use and acceptance of single service containers for ice cream mix and for dispenser milk, reducing the number of metal multi-use cans for these products; introduction of flavor-control equipment in plants, utilizing the principle of direct steam injection into the product while under vacuum; seeking ways and means of satisfactorily eliminating a long-recognized problem: proper handling, storage, etc., of coffee cream and cream substitutes in restaurants.

The above items are only a partial list with which the milk consultants have been involved during the past year.

BUREAU OF LABORATORIES

NATHAN J. SCHNEIDER, Ph.D., M.P.H.
Director

This bureau provided laboratory services to the county health units and to the bureaus and divisions at the state level in connection with their diverse public health programs and responsibilities. In addition, assistance was given licensed practitioners of the healing arts to diagnose and treat infectious and certain non-infectious diseases. As charged by state regulations, the bureau also carried out responsibilities to approve private and hospital laboratories to perform prenatal and premarital serology, to assist the Board of Examiners in the Basic Sciences to license medical technologists and to regulate medical laboratories, and to provide laboratory services in the regulation of the sale of drugs, cosmetics and devices in Florida.

The annual report of last year referred to the new responsibility placed on the bureau by Florida State Chapter 500, Food, Drug and Cosmetics Act. A senior chemist with extensive experience in the analyses of drug, toxicological and biochemical specimens was employed in July 1962. Special training and orientation in the Food and Drug Laboratories of the Department of Health Education and Welfare (DHEW) of the Federal government was provided this chemist. His capabilities will be more adequately realized when budget support makes available certain specialized instrumentation such as an infrared spectrophotometer and a gas chromatograph which are essential in modern day toxicology, drug and cosmetic analyses.

The radiological chemistry section was moved to the Orlando Regional Laboratory in September 1961, as reported in the annual report of last year. Minor renovations were made; a chemical hood was installed and two expensive pieces of radiological testing equipment, viz. a low beta background counter and a single channel pulse height analyzer were obtained. These units permit the measurement of low level radiation in selected foods and environmental specimens such as milk and water. However, because the level of radiation to be measured is extremely low, it is necessary to test large size samples of materials concentrated by specialized chemical separations into small sample size, acceptable to the counting chambers. More sophisticated equipment such as a multichannel analyzer is needed to provide the laboratory with the capability of identifying the actual radioisotopes which may be present in the environment. There is also a need for personnel to meet the demands from the Division of Radiological and Occupational Health and the Bureau of Sanitary Engineering for a broad radiological surveillance capability in Florida.

The bureau was authorized a microbiologist for assignment to the Franklin County Marine Laboratory in Apalachicola which had been

operated previously by a senior sanitarian in the Bureau of Sanitary Engineering. This change relieved the sanitarian of his laboratory duties and permitted him to devote full-time to the inspection of the oyster industry in that area. The newly assigned laboratorian reported to Apalachicola in August. In December, the sanitarian resigned, leaving the microbiologist to carry on both responsibilities until a replacement can be found. It is hoped that one additional laboratory person will be assigned to this laboratory in the near future to permit offering limited services to the Franklin County Health Department (CHD) and adjacent CHDs and to local physicians in the area. Transportation facilities are limited and it would be helpful to test water, milk and certain diagnostic specimens in the Apalachicola laboratory instead of shipping them to the Pensacola or Tallahassee Regional Laboratories as is now the case.

The small laboratory operated by the Volusia CHD was closed down and these services were transferred to the Jacksonville laboratory.

A major outbreak of encephalitis in the Tampa Bay area taxed the capabilities of the Virology Section in Jacksonville. With the assistance of the Communicable Disease Center (CDC) of the U.S. Public Health Service (USPHS), a regional encephalitis laboratory was established in temporary quarters loaned by the Florida Tuberculosis Board and located on the grounds of the Southwest Florida Tuberculosis Hospital in Tampa. Initially, specimens from suspect cases of encephalitis were examined in Jacksonville; with the establishment of the Tampa Bay Regional Encephalitis Laboratory in October, all specimens from the Tampa Bay area (Sarasota, Manatee, Pinellas and Hillsborough) were processed in Tampa. Close liaison was maintained between the Jacksonville and Tampa laboratories. Much of the laboratory equipment and personnel were furnished by CDC, however, this bureau participated in the activities in Tampa, insofar as available budget and personnel allowed.

DIAGNOSTIC SERVICES

In general, the laboratory offered the same types of diagnostic services in 1962 as in previous years. Considering only the general public health diagnostic laboratory services, as shown in Table 28, there was a total of 2,771,705 examinations performed, representing a modest increase of 85,539 tests over 1961. Much of this change was registered in syphilis serology, diagnostic bacteriology, mycology, virology and forensic chemistries, such as toxicology, drugs and narcotics. Offsetting the increase were moderate reductions in routine health card enteric bacteriology and parasitology, agglutination antibody examination of blood specimens and sanitary bacteriology.

The effort of the past several years to reduce the request for laboratory examinations for relatively nonproductive tests became apparent during the year in review. There were reductions in routine ag-

glutinations, stool cultures and parasitology for health cards, vaginal smears for gonorrhea and blood smears for malaria. In addition, the routine examinations of direct smears made from sputum concentrates of known tuberculosis patients were dropped. Beginning in 1962, such specimens were examined by the more sensitive cultural procedure and verified by rapid biochemical tests. However, smear examinations were continued when specifically requested by the physician submitting specimens from new or suspect tuberculosis cases.

The number of examinations of milk and dairy products decreased from 172,932 in 1961 to 164,820 in 1962. This decrease is attributable in part to a reduction of replicate samples submitted to the laboratory.

The number of drinking water and swimming pool examinations performed by the bureau decreased from 181,222 during 1961 to 171,498 in the current year. This decrease is undoubtedly due to the fact that 10 counties have been approved for testing private well water by the membrane filter procedure and are thus examining specimens which might have been sent to the state laboratories. Four of these counties, St. Lucie, Pinellas, Manatee and Charlotte, have also been approved for testing public waters and swimming pools.

Pollution water survey examinations have increased from 52,460 in 1961 to 66,680 during the year under review. This increase could easily have been tenfold had not the state laboratories, because of limitations of personnel and facilities, placed a quota on the number of samples accepted for examination. The demands for this service are particularly large in Florida because of our tremendous usage of natural bodies of water and seacoast for recreation, industry and particularly oyster growing beds.

The results of examinations for all laboratories are indicated in Table 29. In 1962, a total of 719,891 blood specimens were examined for syphilis, of which 42,954 were reactive. Excluding the unsatisfactory specimens, the proportion reactive was 6.1 per cent. This continues a disturbing upward trend, beginning with 4.9 per cent in 1960 and 5.4 per cent in 1961. A total of 109 blood specimens were referred to the Venereal Disease Research Laboratory in Atlanta for Treponema Pallidum Immobilization (TPI) testing and 52 or 47.7 per cent were found reactive. This is consistent with findings in preceding years.

The proportion of positive agglutination tests dropped from 30 per cent in 1961 to 17 per cent in 1962. The decrease was noted primarily for typhoid and heterophile examinations; in contrast, positive agglutinations for brucellosis increased slightly.

Considering specimens examined for diphtheria, there were 2.6 per cent positives as compared to 3.3 per cent in 1961 and 4.5 per cent in 1960. This downward trend is gratifying, showing the effec-

tiveness of extensive immunization programs. However, most of the diphtheria isolations (85 per cent of 137) were obtained from north Florida, particularly in the Jacksonville area.

The number of public health tuberculosis specimens examined during 1962 totaled 39,654 of which 2589 or 8.2 per cent were positive for *M. tuberculosis* or unclassified mycobacteria, as compared to 7.1 per cent during the preceding year. No significance should be attributed to this difference except that the laboratory findings indicate the presence of continuing mycobacterial infections in Florida. The relative efficacy of aerosol bronchial lavage over gastric lavage as a clinical specimen for the tuberculosis cultural examination was again demonstrated. A total of 189 aerosols yielded *M. tuberculosis* as compared to 34 gastrics.

Microscopic smear specimens submitted for the diagnosis of gonorrhea and other infections decreased moderately during 1962. The proportion of positives for gonorrhea was 16.0 per cent which was essentially the same as the preceding year. Cultures for *N. gonorrhea* decreased from 26,113 in 1961 to 25,824 in 1962 and the proportion positive, 5.8 per cent and 4.7 per cent, respectively.

The number of stool specimens examined for enteric pathogens increased from 43,516 in 1961 to 47,728 in 1962. There was 87 isolations of *S. typhosa* and 539 isolations of other *Salmonella*. This represents little change from the experience of 1961; however, the number of *Shigella* isolations continued to rise markedly; 94 in 1960, 168 in 1961 and 215 in 1962.

Human leptospirosis was confirmed by laboratory findings in seven patients during 1962. Paired serum specimens of patients with aseptic meningitis and suspected viral etiology were examined for leptospiral agglutinins.

A total of 150 lesion specimens were found positive for *T. pallidum* by darkfield examination. This compares with none in 1957 and 1958, 72 in 1959, 160 in 1960 and 194 in the preceding year. The finding of *T. pallidum* in lesions is diagnostic evidence of syphilis.

There was an increase in specimens found positive for mycological infections. This increase is a continuing trend. In 1962, there were a total of 1631 positive specimens compared to 1533 in 1961, 1450 in 1960 and 1155 in 1959. Approximately 75 per cent of the positives were *Candida albicans*.

A total of 1814 bacteriological cultures were received in the laboratory for identification. This service is of value to hospital and private laboratories which, because of limited facilities or the lack of special reagents, desire assistance and/or confirmation in identifying bacteriological cultures.

In the field of dental caries bacteriology, 4495 saliva specimens

were examined for lactobacilli counts. The dentists in Florida are increasing the usage of this service as evidenced by the fact that this is a 21.8 per cent increase over 1961 experience. Reports of lactobacillus counts were sent to the dentists through the Bureau of Dental Health which provides professional interpretation of the results.

There was a moderate increase in the number of stool specimens examined for intestinal parasites. In 1962 a total of 124,552 specimens were examined as compared to 123,993 in the preceding year. The proportion positive for hookworm, ascaris and certain protozoa were somewhat lower, but enterobius and trichuria infections increased. Again, as in 1961, no blood smears were found positive for malaria.

In the chemistry section of the laboratory, a total of 30,790 blood specimens were examined for various determinations, including sugar (glucose), cholesterol, hemoglobin, cholinesterase inhibitor, phenylalanine, barbiturates, amphetamines and alcohol. The number of toxicological and narcotic specimens increased markedly, from 1464 specimens in 1961 to 1707 in 1962. These specimens are quite time consuming to analyze and require the chemist to spend much time in court testifying on the laboratory findings. There is a need to provide the chemistry section with more sophisticated analytical instruments, such as the infrared spectrophotometer and the gas chromatograph which may permit a more exact analysis in minutes as compared to days of long drawn out chemical procedures with findings of less validity.

A drug and cosmetic unit was added to the chemistry section during the latter part of the year. A total of 20 specimens were examined; however, there was much time and effort spent in providing training and orientation to the chemist charged with this responsibility. This service is provided to the Bureau of Narcotics. It is anticipated that the demands for this service will increase substantially as the inspection program is developed. Insofar as possible, every effort was made to refer such specimens as may come under the federal regulations to the laboratories of the Food and Drug Administration of DHEW. In this way, duplication of laboratory effort or competition of service with the federal responsibility was avoided.

The radiological chemistry section which was moved to Orlando in late 1960, experienced a marked increase in its output in laboratory examinations. A total of 361 surface and rainfall water, 710 air, 49 milk and 34 miscellaneous specimens were examined in 1962. The continuation of the program of radiological surveillance of ground waters was augmented by the sampling of rain water. The establishment of a sampling network in Tampa, Orlando, Tallahassee and Pensacola (which supplements federal air sampling stations in Miami and Jacksonville) was worked out with the Division of Radiological and Occupational Health. Milk samples were collected for the determination of certain radionuclides which tend to concentrate in the bone

structure of the body, such as Strontium -89, Strontium -90, Yttrium -90 and Cesium -137, and for Iodine -131 which concentrates itself in the thyroid gland. Analytical methods development was advanced far enough this year to permit the chemical separation of individual radionuclides in area milk samples. The isolation of minute quantities of materials, too small for detection by any means of analyses other than radioactivity tracer action, is necessarily a slow and tedious process, requiring more than 50 man hours for each determination. During the latter part of the year, an unexpected rise in Iodine -131 levels in milk throughout the nation prompted the laboratory to initiate a system for the measurement of this radionuclide. With the use of ion exchange resins, milk samples were filtered in the central or regional laboratory and the resin which took up the I-131 from the milk was shipped to Orlando for measurement of the radionuclide. A pilot procedure was developed for milk from the Pensacola and Orlando areas. This will be extended to other areas of the state during the coming year.

The numbers of veterinary public health specimens examined in the laboratory remained at a low level. With the establishment of the Animal Diagnostic Laboratory of the State Department of Agriculture in Kissimmee, most requests for diagnosis of animal diseases were referred to that laboratory. However, a few specimens for such zoonoses as leptospirosis, streptococci, brucellosis, anthrax, etc., which have public health significance were accepted for examination.

Diagnostic services for viral and rickettsial infections were offered on a statewide basis from the Jacksonville laboratory. As was the case in the preceding year, the numbers of specimens examined for virus isolations and/or serologically increased substantially again during 1962. A total of 2360 blood specimens were examined by the hemagglutination-inhibition test for St. Louis encephalitis virus (SLE), Eastern Equine and Western Equine encephalitis (EEE and WEE) virus and other arthropod borne viral agents. Many of these specimens came from the encephalitis outbreak in the Tampa Bay area before the establishment of the Tampa Bay Regional Encephalitis Laboratory (TABREL) in Tampa.

The number of animals examined for rabies (Table 29) increased from 2193 in the preceding year to 2660 in 1962, representing 21.3 per cent increase. More significantly, the number of positive findings increased from 55 in 1961 to 72 during the year under review. This compares to only 30 positives in 1960. Most of the increase in positives were found in raccoons and bats. However, more positives were detected in cats, foxes and skunks. For the first time, the fluorescent rabies antibody (FRA) procedure which had been used experimentally for the past four years was adopted as the routine test for the detection of rabies virus in animal brain tissue, instead of the mouse inoculation test. The Sellers' direct microscopic Negri body examination was continued. Mouse inoculations were performed on selected wild animals

such as the raccoon, skunk and bat and on routine animal brain tissue unsatisfactory for the FRA test.

The cooperative laboratory program established between the State Board of Health and the State Tuberculosis Board completed its seventh year successfully. This arrangement has contributed markedly to the success of the control of tuberculosis in Florida. The coordinated laboratory program provided uniform bacteriological procedures for the diagnosis of tuberculosis and a closer liaison on each patient from early detection of the disease to hospital treatment and finally to treatment-follow-up after the patient has been returned to his home community. The nature and extent of the studies performed in the laboratories of each hospital are given in Table 32. A total of 42,927 bacteriological examinations were made for tuberculosis and 3992 cultures of *M. tuberculosis* were tested for drug susceptibilities. These figures represent a decrease of 13.4 per cent in examinations for tuberculosis and 29 per cent in the number of cultures subjected to drug susceptibility testing. This decrease is, in part, due to a drop in the number of hospital patients and to a greater selectivity by the clinician in ordering laboratory examinations. The hospitals performed a large number of other bacteriological, mycological and clinical chemistry examinations as shown in Table 32.

SPECIAL STUDIES

The bureau continued its active program in special studies. A listing of the special projects with which the bureau was concerned are provided in Tables 28 and 29.

The identification of cultures belonging to the *Salmonella-Arizona* group was performed. A total of 823 cultures were typed during the year, compared with 432 in 1959, 786 in 1960 and 598 in 1961. This information is useful in determining epidemiologically, the source of an enteric infection.

A major food poisoning outbreak occurred in a school in Duval County in May. This was a particularly severe outbreak which required extensive laboratory examinations for diagnostic and epidemiological purposes. A total of 684 stool specimens were examined and 108 isolations of *Shigella flexneri* were obtained. Appropriate environmental and food specimens, as well as vomitus and stool material from cases were also examined for other organisms such as staphylococci usually associated with food poisoning. It was concluded that the episode was caused by *Shigella flexneri* in contaminated salad served in the school cafeteria.

Diarrheal disease studies were carried out in the Miami Regional Laboratory. One supported by a contract with the Armed Forces Epidemiological Board (AFEB) of the U. S. Department of Defense was concerned with the role of enteroviruses in diarrheal disease in man.

This project was concluded during the year. A second newly activated project supported by a contract with AFEB is concerned with a study of shigellosis as a cause of diarrheal disease and the therapeutic and prophylactic effect of a concomitant lactobacillus infection in the intestinal tract on the course of the shigellosis. Of interest in this study is the use of the marmoset monkey as the test animal.

Enterovirus sewage studies were continued in the Jacksonville and Miami laboratories. Both involved collections of weekly specimens from municipal and/or private sewage systems and their subsequent examination for polio and other enteroviruses. The Jacksonville laboratory received specimens from Manatee, Hillsborough, Palm Beach, Duval, Leon and Escambia Counties. The Miami laboratory obtained specimens collected in Dade County only.

A separate poliovirus surveillance study was carried out in Hillsborough County following the mass feeding of oral trivalent polio vaccine early in the year. Rectal swabs were collected on a monthly basis from children in 15 day nurseries. No poliovirus was detected after vaccine virus had left the community, although ECHO 7, 8, 22 and 26 and Coxsackie B2 and B6 viruses were isolated from nursery children. This project was supported in part by funds from a commercial biological firm.

Fluorescent antibody (FA) studies were continued. The FA technique was used to identify Group A streptococci cultured by conventional bacteriological procedure.

The FA procedure for the diagnosis of gonorrhea was carried out. This project, supported by a grant from the USPHS, was terminated June 30, in the year under review. It was part of a national project to determine the relative ability of 10 different therapeutic drug regimens to cure *N. gonorrhea* (GC) infections. Preliminary results of this part of the study are presented in Table 31. A total of 777 females were studied at the City-County Venereal Disease Clinic in Jacksonville and 47.2 per cent were found to be infected with gonococci. Considering the positives by type of case, approximately 47 per cent of the suspect GC or contacts of known cases of GC were positive. There was considerable infection in the other females who had availed themselves of the service of the clinic. A total of nine treatment failures or re-infections were experienced. In comparing 10 treatment schedules, preliminary reports based on the nationwide study indicated that treatment of 500 mg Panmycin or 3 gms Cyclamycin, or 3 gms Mystecilin F, yielded the best therapeutic results. Several regimens of penicillin preparations included in the study did not prove as effective. The least effective in the treatment of gonorrhea in females was 1 gm of streptomycin. The findings in Table 31, regarding the efficacy of the FA procedure for detecting gonorrhea infection in females, were very gratifying. Specimens collected from the cervix yielded the highest proportion of positives as compared to those collected from the urethra.

and vagina. It is important to note that examination of specimens collected from all three sites increased the number of positives considerably.

The fluorescent treponemal antibody (FTA) test for the diagnosis of syphilis was studied. Current data indicated that the FTA provided results which were comparable to the TPI test. The FTA procedure could be performed in the Jacksonville laboratory because of the relative simplicity and economy of the test; whereas, TPI examinations were done by the USPHS laboratories in Atlanta. It must be noted that the FTA should be used much like the TPI, i.e. in the study of problem cases, particularly biologic false positives. Presumably, problem cases should be studied carefully and given a complete laboratory workup with the routine cardiolipin antigens such as the VDRL and Kolmer complement fixation tests, before resorting to the FTA examination. Repeated examination of follow-up specimens with these tests may be indicated before a definitive diagnosis is established.

Studies of rabies in bats and wildlife in Florida have been supported by a USPHS research grant for the past eight years. This grant started its ninth year in October and will be concluded late in 1963. Studies during the year under review included a determination of the relative infectivity of grey squirrels and cotton rats to freshly isolated strains of rabies virus from bat salivary glands. Data gathered from two experiments indicated that the grey squirrel was susceptible to rabies virus administered peripherally; in contrast, cotton rats were quite resistant to infection.

The examination of mosquitoes collected in the Vero Beach area during 1961 for presence of SLE virus and other arthropod-borne viruses were completed. No viral agents were found.

Studies of the unclassified mycobacteria were continued under the guidance and direction of the Division of Epidemiology. Activities of this project, supported by a grant from the National Institutes of Health, has been reported elsewhere (Bureau of Preventable Diseases).

Bacteriophage typing of coagulase positive staphylococci in hospital-acquired infections were continued, but on a reduced scale. Very few requests for assistance were received from hospitals. Data obtained in previous years indicated the futility of bacteriophage typing of staphylococci in the absence of a careful epidemiologic investigation, as the phage typing of single cultures provided information of little value in controlling staphylococcal infections. During the latter part of the year, the occasional request for bacteriophage typing was referred to CDC, as it was not technically feasible to maintain reliable bacteriophages and other reagents for occasional usage.

A two-year study concerned with the nature and extent of air-borne pollen in selected areas in Florida was completed. This project was supported, in part, by a grant from the Florida Tuberculosis and

Health Association. Samples collected daily from approximately 30 stations were shipped to the Jacksonville laboratory for analysis, to determine the amount of pollen circulating in the air. Seasonal trends of three allergenic (ragweed, oak and grass) pollen were determined. The preparation of a final report has been delayed by the untimely passing of John M. McDonald, M.D., who supervised and directed the project. A preliminary report was issued in 1961.

The serology section of the Miami Regional Laboratory continued a cooperative study of the relative sensitivity of the Kolmer Reiter Protein (KRP) and the Kolmer cardiolipin complement fixation tests. Both procedures provide valid findings but the KRP is considerably less sensitive than the Kolmer test. Thus, the burden of interpretation of serological tests falls on the shoulders of the clinician who must make a diagnosis in the light of concomitant clinical findings.

CONSULTATIVE AND EDUCATIONAL SERVICES

A workshop on darkfield microscopy was held in March. This procedure is used for the rapid identification of *Treponema pallidum* as the etiological agent which causes syphilis. Assisted by a field consultant, Venereal Disease Research Laboratory, USPHS, the bureau conducted the training course in each of four cities in Florida, Jacksonville, Orlando, Tampa and Miami. A total of 35 laboratory technicians, one county health officer and 17 VD investigators attended.

The sanitary bacteriologist of the bureau participated in a short course of one-week duration given to the municipal water plant operators on standard methods and procedures for testing water. This is an annual workshop sponsored by the General Extension Division of the University of Florida.

Technical and consultative guidance was provided to seven medical technologists, three foreign physicians, five CHD sanitarians and one medical visitor from Brazil. Several groups of high school and college students were given tours of the central and regional laboratories.

Continuing visits and inspections were made to 19 commercial dairy laboratories to certify their performance of bacteriological and chemical test procedures in accordance with Standard Methods and USPHS requirements.

A total of five persons of the laboratory staff took training and refresher courses in fluorescent antibody, microscopy, syphilis serology, toxoplasmosis, sanitary bacteriology and virology. The senior chemist responsible for drug and cosmetic analyses spent one week in the Food and Drug Administration Laboratories of the DHEW in Washington for special orientation and training on labeling and drug analyses.

Revision as of January 1, 1962, of Previously Published List of Laboratories Approved for Premarital and Prenatal Serology.

ADDED

Beaches Hospital Laboratory, Jacksonville Beach
 Biscayne Medical Laboratory Inc., 2650 Biscayne Blvd., Miami
 Cedars of Lebanon Hospital Laboratory, 1321 N.W. 14th St., Miami
 Central Laboratory Inc., 542 S.W. 12th Ave., Miami
 3125 Clinical Laboratory, Professional Bldg., 3125 Fifth Ave. N., St. Petersburg
 Drs. Collins and Noble, 3558 S. Orange Ave., Orlando
 Coral Gables General Hospital, 2600 S.W. 37th Ave., Coral Gables
 Dade City Medical Center Laboratory, Dade City
 Doctor's Building Inc. Laboratory, 11 Trenton St., St. Augustine
 Eau Gallie Clinical Laboratory, 256 Hanch Ave., Eau Gallie
 Samuel R. Garrett, M.D., 636 First Street, North, Winter Haven
 Gate Medical Laboratories, 2085 Siesta Drive, Sarasota
 Glendale Hospital Laboratory, Madison at Second, Palatka
 Hollywood Hospital Laboratory, P. O. Box 1220, Hollywood
 Interamerican Laboratory Service, 5946 S.W. 73rd St., South Miami
 Jackson Hospital Laboratory, Marianna
 Lakeside Hospital Laboratory, DeFuniak Springs
 Lerner Clinical Laboratory Inc., 8938 Bird Road, Miami
 Lincourt Medical Center, Clearwater
 Madison County Memorial Hospital Laboratory, Madison
 Miami X-Ray and Clinical Laboratory, Olympia Building, Miami
 Northeast Florida State Hospital, Macclenny
 North Miami General Hospital Laboratory, 1701 N.E. 127th St., North Miami
 Pasadena Medical Laboratory, 7102 Central Ave., St. Petersburg
 William R. Ploss, M.D., 638 United Street, Key West
 Professional Laboratories, Medical Arts Bldg., Rockledge
 Professional Medical Laboratory, 111 S. John C. Sims Parkway, Niceville
 Southern Clinical Laboratory, 1456 Washington Ave., Miami Beach
 Paul A. Tanner, M. D., P. O. Box 65, Auburndale, Florida
 Washington County Hospital, Chipley
 Waterman Hospital Laboratory, Eustis
 West Volusia Memorial Hospital, P. O. Box 509, DeLand

REMOVED

Dr. Grover C. Collins, Box 184, Palatka (Deceased)
 Doctors Clinical Laboratory, 1150 S.W. 22nd St., Miami
 Medical Arts Laboratory, 1215-B North Orange Ave., Orlando
 Drs. Parker and Salina, P. O. Box 578, Valparaiso
 Schreiber Medical Laboratory, Venetian Medical Bldg., 1451 North Bayshore Drive, Miami
 Wauchula Infirmary, Wauchula
 Alan E. Zimmer, M.D., 4905 Broadway, West Palm Beach

**Revision as of January 1, 1962, of Previously Published List of
Laboratories Approved for Premarital and Prenatal Serology.**

ADDED

Beaches Hospital Laboratory, Jacksonville Beach
 Biscayne Medical Laboratory Inc., 2650 Biscayne Blvd., Miami
 Cedars of Lebanon Hospital Laboratory, 1321 N.W. 14th St., Miami
 Central Laboratory Inc., 542 S.W. 12th Ave., Miami
 3125 Clinical Laboratory, Professional Bldg., 3125 Fifth Ave. N., St.
 Petersburg
 Drs. Collins and Noble, 3558 S. Orange Ave., Orlando
 Coral Gables General Hospital, 2600 S.W. 37th Ave., Coral Gables
 Dade City Medical Center Laboratory, Dade City
 Doctor's Building Inc. Laboratory, 11 Trenton St., St. Augustine
 Eau Gallie Clinical Laboratory, 256 Hanch Ave., Eau Gallie
 Samuel R. Garrett, M.D., 636 First Street, North, Winter Haven
 Gate Medical Laboratories, 2085 Siesta Drive, Sarasota
 Glendale Hospital Laboratory, Madison at Second, Palatka
 Hollywood Hospital Laboratory, P. O. Box 1220, Hollywood
 Interamerican Laboratory Service, 5946 S.W. 73rd St., South Miami
 Jackson Hospital Laboratory, Marianna
 Lakeside Hospital Laboratory, DeFuniak Springs
 Lerner Clinical Laboratory Inc., 8938 Bird Road, Miami
 Lincourt Medical Center, Clearwater
 Madison County Memorial Hospital Laboratory, Madison
 Miami X-Ray and Clinical Laboratory, Olympia Building, Miami
 Northeast Florida State Hospital, Macclenny
 North Miami General Hospital Laboratory, 1701 N.E. 127th St., North
 Miami
 Pasadena Medical Laboratory, 7102 Central Ave., St. Petersburg
 William R. Ploss, M.D., 638 United Street, Key West
 Professional Laboratories, Medical Arts Bldg., Rockledge
 Professional Medical Laboratory, 111 S. John C. Sims Parkway, Nice-
 ville
 Southern Clinical Laboratory, 1456 Washington Ave., Miami Beach
 Paul A. Tanner, M. D., P. O. Box 65, Auburndale, Florida
 Washington County Hospital, Chipley
 Waterman Hospital Laboratory, Eustis
 West Volusia Memorial Hospital, P. O. Box 509, DeLand

REMOVED

Dr. Grover C. Collins, Box 184, Palatka (Deceased)
 Doctors Clinical Laboratory, 1150 S.W. 22nd St., Miami
 Medical Arts Laboratory, 1215-B North Orange Ave., Orlando
 Drs. Parker and Salina, P. O. Box 578, Valparaiso
 Schreiber Medical Laboratory, Venetian Medical Bldg., 1451 North
 Bayshore Drive, Miami
 Wauchula Infirmary, Wauchula
 Alan E. Zimmer, M.D., 4905 Broadway, West Palm Beach

TABLE 28
EXAMINATIONS PERFORMED BY LABORATORIES, 1962

	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Orlando	West Palm Beach	Daytona Beach ¹	Pinellas County	Apalachicola ²	Total
GRAND TOTALS	992,454	624,468	540,872	150,835	139,749	158,060	116,465	10,908	35,843	2,051	2,771,705
SEROLOGY											
Syphilis	404,647	380,901	361,694	83,003	53,433	57,544	54,295				1,395,517
Agglutination & related tests	1,609	196	919	71	97	59	24				2,975
Blood typing (Rh)	4,675	4,348	3,485	1,611	1,222	537	1,008				16,886
DIAGNOSTIC BACTERIOLOGY											
Diphtheria & associated infections	8,866	1,870	770	18	6,738	372	27	183			12,106
Tuberculosis	80,907	23,484	16,472	5,088	9,968	2,124	7,347	116			111,464
G.C.—Smear	16,196	14,885	21,060	2,354	2,304	2,555	282				78,318
Culture	1,533	56,560	5,344	6,632	23,196	28,056	1,284	58			26,420
Enteric	69,400	16	11,006	128	192	216	88				196,192
Blood culture	584		168								1,392
Leptospirosis	597										597
Miscellaneous	69,637	15,128	3,316	1,163	509	19,631	3,153	359			112,896
SANITARY BACTERIOLOGY											
Dairy products	18,984	42,276	28,386	12,516	16,758	12,102	16,626	4,524	12,648		164,820
Water, drinking & pools	22,516	38,918	26,470	11,448	10,546	17,252	22,638	4,644	16,644	422	171,498
Pollution surveys	19,635	10,815	11,460	6,875	2,350	2,555	5,830		6,070	1,090	66,680
Food (sanitary quality tests)	1,218		959	308	287	756					4,067
Food Poisoning	958	242	796	78	114	404	42				2,634
Utensils	141	175	15		46	1,509	6	116	396		2,404
DENTAL CAVES BACTERIOLOGY	8,572										8,572
PARASITOLOGY											
Intestinal parasites	56,298	22,860	6,732	13,431	10,668	10,135	2,103	595			122,822
Malaria	40	38	10	10	14						112
MYCOLOGY	14,925	36	93	360		897	72				16,383
CHEMISTRY											
Blood	11,608	10,062	820	5,402	1,169	348	1,467	201			31,077
Spinal fluid	1,075		119	15	28		1				1,238
Urine	5		24								313
Toxicology & narcotics	1,509		1,555				172	112			3,064
Drugs & cosmetics	20										20
Water	2,914		373						85		3,372
Other	2,494		6,920								9,414

TABLE 28 (Continued)
EXAMINATIONS PERFORMED BY LABORATORIES, 1962

	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Orlando	West Palm Beach	Daytona Beach ¹	Pinellas County	Apalachicola ²	Total
RADIOLOGICAL CHEMISTRY											
Water (ground & precipitation)						798					798
Air						1,984					1,984
Milk (Sno, Ceasr, Ias, etc.)						83					83
Other						68					68
VETERINARY PUBLIC HEALTH											
Leptospirosis	1,121										1,121
Other	2,651										2,651
VIRAL SEROLOGY											
Hemagglutination-inhibition	11,485										11,485
Neutralizations	2,738										2,738
Complement fixation	35,192										35,192
VIRAL ISOLATIONS (except rabies)											
Rabies—microscopic	12,606		2,504								15,110
fluorescent antibody	1,730	1,658	680	324	110	630					5,132
mouse inoculation	7,278										7,278
Fluorescent antibody	1,312										1,312
SPECIAL PROJECTS											
Salmonella typing	4,938										4,938
Food poisoning (human cases)	2,304										2,304
Diarrheal disease studies (AFEB)			16,396								16,396
Enterovirus sewage studies	6,472		11,214								17,686
Polio surveillance (Hillsborough Co.)	5,866										5,866
Fluorescent antibody											
Streptococcus	2,240										2,240
Gonococcus	40,874										40,874
T. pallidum (syphilis)	300										300
Wild animal (rabies)	14,217										14,217
Arthropod-borne virus isolations											
Mosquitoes (Vero Beach)	782										782
Unclassified mycobacteria	7,618										7,618
Staphylococcal bacteriophage typing	3,330										3,330
Airborne pollen studies	5,837										5,837
Syphilis serology (Kolmer vs Reiter C.F.)			1,112								1,112

¹Daytona Beach laboratory discontinued after September, 1962.

²Apalachicola laboratory staffed by Bureau of Laboratories beginning August, 1962.

TABLE 29

SPECIMENS SUBMITTED FOR EXAMINATION
BY FINDINGS, 1962

EXAMINATION	Number of Specimens				
	Positive Specimens		Negative	Unsat.	Total
	One or More Positive Findings	Positive for Findings Indicated			
SEROLOGY					
Syphilis	42,954		665,726	11,211	719,891
Agglutination and related tests	433		2,109	96	2,638
Typhoid		74			
Typhus		5			
Brucellosis		63			
Tularemia		1			
Heterophile		322			
Other		6			
Blood typing (Rh)					15,846
DIAGNOSTIC BACTERIOLOGY					
Diphtheria and associated infections	1,878		3,236	3	5,117
C. diphtheria		137			
Vincent's		63			
Streptococci		657			
Other		1,375			
Tuberculosis	2,589		34,200	2,865	39,654
Sputum		2,322			
Aerosol		189			
Urine		13			
Gastric		34			
Other fluids and exudates		31			
Animal inoculations (G.P.)					16
Gonorrhea—smears	22,292		16,867	285	39,444
Intracellular Gram negative diplococci		6,252			
Extracellular Gram negative diplococci		326			
Trichomonads		3,889			
Yeasts		1,953			
Vincent's organisms		266			
Many pus cells		15,865			
Gonorrhea—cultures	1,192		24,036	596	25,824
Enteric infections	1,004		46,538	186	47,728
S. typhosa		87			
Other Salmonella		539			
Shigella (Flexner & Sonnei)		215			
Other		148			
Blood Cultures	33		141	2	176
Brucella		1			
Other		38			
Leptospirosis	7		590		597
Miscellaneous	10,803		5,564	26	16,393
Darkfield—T. pallidum		150			
Chancroid—Ducrey's		12			
Granuloma—Donovan bodies		23			
Gonococcus in eye		18			
Other eye smears		148			
Other eye cultures		61			
Urine cultures		972			
Other fluids & exudates		4,195			
Mycological examinations		1,631			
Organisms for identification		1,814			
Sensitivity testing		322			
Other examinations		1,308			
Miscellaneous special services		149			
SANITARY BACTERIOLOGY					
Dairy products					27,478
Water, drinking & pools					85,819
Water, pollution surveys					13,342
Foods (sanitary quality tests)					581
Food poisoning					410
Utensil swabs					2,405
DENTAL CARIES BACTERIOLOGY					4,495

TABLE 29 (Continued)

SPECIMENS SUBMITTED FOR EXAMINATION
BY FINDINGS, 1962

EXAMINATION	Number of Specimens				
	Positive Specimens		Negative	Unsat.	Total
	One or More Positive Findings	Positive for Findings Indicated			
PARASITOLOGY					
Intestinal parasites	20,536		102,286	1,730	124,552
Hookworm		6,816			
Ascaris		5,223			
Enterobius		3,681			
Trichuria		902			
Other helminths		100			
E. histolytica		107			
Nonpathogenic amoeba		3,839			
Flagellates		2,435			
Other		16			
Malaria			56	2	58
CHEMISTRY					
Blood					30,790
Spinal fluid					741
Urine					229
Water					1,257
Toxicology & narcotics					1,707
Drugs & cosmetics					20
Other					9,414
Radiological chemistry					
Water (ground & precipitation)					361
Air					710
Milk (Sr ⁹⁰ , Ce ¹³⁷ , I ¹³¹ , etc.)					49
Other					34
VETERINARY PUBLIC HEALTH					
Leptospirosis	13		268	6	287
Other	98		182		280
VIRAL SEROLOGY					
Hemagglutination—inhibition					2,360
Neutralizations					152
Complement fixation					8,639
VIRAL ISOLATIONS (except rabies)					2,592
Rabies—microscopic	72		2,533	55	2,660
Dog		5			
Cat		5			
Fox		4			
Horse		1			
Raccoon		39			
Skunk		3			
Bat		14			
Wildcat		1			
Mouse inoculations					1,312
SPECIAL PROJECTS					
Salmonella typing					823
Food poisoning (human cases)	108		576		684
Diarrheal disease studies (AFEB)					8,058
Enterovirus sewage studies					6,012
Polio surveillance (Hillsborough Co.)					636
Fluorescent antibody					
Streptococcus					112
Gonococcus					4,551
T. pallidum (syphilis)					300
Wild animal (rabies)					224
Arthropod-borne virus isolations					
Mosquitoes (Vero Beach)					478
Unclassified mycobacteria					1,772
Staphylococcal bacteriophage typing					183
Airborne pollen studies					234
Syphilis serology (Kolmer vs. Reiter C. F.)					934
TOTAL					1,261,059

TABLE 30

VIRAL AND RICKETTSIAL DIAGNOSTIC FINDINGS, 1962

TESTS	Positive	Negative	Total
Lymphocytic choriomeningitis	—	407	407
Mumps	23	402	425
Eastern encephalomyelitis	—	400	400
Western encephalomyelitis	—	399	399
St. Louis encephalitis	71	519	590
Herpes simplex	—	12	12
Poliovirus type 1	8	416	424
Poliovirus type 2	2	417	419
Poliovirus type 3	7	412	419
Measles	—	21	21
Vaccinia-variola	—	0	0
Murine typhus	—	30	30
Rickettsialpox—Rocky Mt. spotted fever	—	30	30
Q fever	—	41	41
Influenza A	3	132	135
Influenza B	22	113	135
Influenza C	—	21	21
Influenza D	—	21	21
Para-influenza 1	1	107	108
Respiratory syncytial	—	0	0
Psittacosis—LGV	—	54	54
Adenovirus	7	104	111
Dengue	—	0	0
ECHO types 4, 7, 9, 25, 26	17	—	17
Coxsackie types A3, A9, A10, B2, B3, B4, B6	11	1	12
Other—Undetermined viral agent(s)	1	242	243
TOTALS	173	4301	4474

TABLE 31

FINDINGS FOR GONORRHEA BY FLUORESCENT ANTIBODY TEST, 1961-62

TYPE OF CASE	Total Cases	TOTAL CASES POS.		PER CENT POSITIVE BY SITE		
		Number	Per Cent	Cervix	Urethra	Vagina
Contact of GC	529	253	47.8	41.2	25.9	30.2
Suspect GC	192	89	46.4	40.0	27.1	28.6
VD other than GC	13	5	38.5	30.8	23.1	15.4
Jail Inmate	17	6	35.3	23.5	17.6	17.6
Other	17	5	29.4	29.4	11.8	17.6
Treatment Failure or Reinfection	9	9	100.0	88.9	77.8	44.4
Total	777	367	47.2	40.5	26.3	29.2

TABLE 32

EXAMINATIONS PERFORMED IN TUBERCULOSIS HOSPITAL LABORATORIES, 1962¹

	Tampa	Lantana ²	Tallahassee ²	Totals
Totals—Excluding Special Studies	49,107	27,758	19,041	95,906
Tuberculosis				
Diagnostic	20,112	13,254	9,561	42,927
Drug susceptibility	2,408	840	744	3,992
Mycology	295	187	206	688
Miscellaneous bacteriology	1,529	1,929	1,646	5,104
Hematology	8,943	6,738	4,592	20,273
Chemistry	12,506	3,277	843	16,626
Urine analysis	2,568	1,525	748	4,841
Other	746	8	701	1,455
Special Studies and Reference Tests:				
Unclassified mycobacteria	222			
INH bioassay (vertical diffusion)	112			
Drug susceptibilities	175			
Silicotic lesion infectivity	150			
Tween degradation	10			
BCG and IIIa immunization	150			
Specific serum inhibition	27			

¹Operated under direction of Bureau of Laboratories; budget provided by State Tuberculosis Board.

²Combined regional public health and hospital laboratories.

TABLE 30

VIRAL AND RICKETTSIAL DIAGNOSTIC FINDINGS, 1962

TESTS	Positive	Negative	Total
Lymphocytic choriomeningitis	—	407	407
Mumps	23	402	425
Eastern encephalomyelitis	—	400	400
Western encephalomyelitis	—	399	399
St. Louis encephalitis	71	519	590
Herpes simplex	—	12	12
Poliovirus type 1	8	416	424
Poliovirus type 2	2	417	419
Poliovirus type 3	7	412	419
Measles	—	21	21
Vaccinia-variola	—	0	0
Murine typhus	—	30	30
Rickettsialpox—Rocky Mt. spotted fever	—	30	30
Q fever	—	41	41
Influenza A	3	132	135
Influenza B	22	113	135
Influenza C	—	21	21
Influenza D	—	21	21
Para-influenza 1	1	107	108
Respiratory syncytial	—	0	0
Psittacosis—LGV	—	54	54
Adenovirus	7	104	111
Dengue	—	0	0
ECHO types 4, 7, 9, 25, 26	17	—	17
Coxsackie types A3, A9, A10, B2, B3, B4, B6	11	1	12
Other—Undetermined viral agent(s)	1	242	243
TOTALS	173	4301	4474

TABLE 31

FINDINGS FOR GONORRHEA BY FLUORESCENT ANTIBODY TEST, 1961-62

TYPE OF CASE	Total Cases	TOTAL CASES POS.		PER CENT POSITIVE BY SITE		
		Number	Per Cent	Cervix	Urethra	Vagina
Contact of GC	529	253	47.8	41.2	25.9	30.2
Suspect GC	192	89	46.4	40.0	27.1	28.6
VD other than GC	13	5	38.5	30.8	23.1	15.4
Jail Inmate	17	6	35.3	23.5	17.6	17.6
Other	17	5	29.4	29.4	11.8	17.6
Treatment Failure or Reinfection	9	9	100.0	88.9	77.8	44.4
Total	777	367	47.2	40.5	26.3	29.2

TABLE 32

EXAMINATIONS PERFORMED IN TUBERCULOSIS HOSPITAL LABORATORIES, 1962¹

	Tampa	Lantana ²	Tallahassee ²	Totals
Totals—Excluding Special Studies	49,107	27,758	19,041	95,906
Tuberculosis				
Diagnostic	20,112	13,254	9,561	42,927
Drug susceptibility	2,408	840	744	3,992
Mycology	295	187	206	688
Miscellaneous bacteriology	1,529	1,929	1,646	5,104
Hematology	8,943	6,738	4,592	20,273
Chemistry	12,506	3,277	843	16,626
Urine analysis	2,568	1,525	748	4,841
Other	746	8	701	1,455
Special Studies and Reference Tests:				
Unclassified mycobacteria	222			
INH bioassay (vertical diffusion)	112			
Drug susceptibilities	175			
Silicotic lesion infectivity	150			
Tween degradation	10			
BCG and IIIa immunization	150			
Specific serum inhibition	27			

¹Operated under direction of Bureau of Laboratories; budget provided by State Tuberculosis Board.

²Combined regional public health and hospital laboratories.

BUREAU OF SPECIAL HEALTH SERVICES

S. D. DOFF, M.D., M.P.H.
Director

The concern of the state with the health of the chronically ill and the aged continues to grow and is reflected in the activities of the various sections of this bureau during 1962. Development of new programs and the expansion of existing programs of prevention by education and early disease detection have been initiated by the Division of Chronic Diseases in cooperation with the counties. The need, especially for early disease detection, is critical in cancer, heart disease, diabetes and glaucoma. A vigorous campaign of education was developed during the year by the Division of Hospitals and Nursing Homes as a means of improving nursing home construction and operation.

Meetings with professional and voluntary organizations and other state agencies concerned with or responsible for services to the chronically ill and aged were more numerous and have led to the creation of essential working arrangements designed to cope with major state problems in the health field.

Noteworthy progress was made in cancer and in glaucoma control work. The organization of the Policy and Coordinating Council for Cardiovascular Disease early in the year holds out promise for substantial improvement in preventive programs.

In the Division of Hospitals and Nursing Homes two staff members assumed responsibility for developing opportunities for training and education. It is hoped that substantial improvement in nursing home construction and operation will result from these workshops, seminars and institutes. Nursing home construction in the state continues to increase and has taxed the staff to the utmost. The number of hospitals and nursing homes increased with significant additions to available beds in both types of facility. The number of hospital plans submitted for approval increased by 45 per cent and the number of nursing home plans submitted increased by over 100 per cent.

Hospital services for the indigent were provided in the amount of \$4,140,410.11 for public assistance recipients and in the amount of \$4,032,360.70 for the medically indigent during the calendar year. This program, administered with the cooperation of the county health departments, supplements local medical care programs for the indigent sick. Hospital and medical services for Indians living on Reservations was again provided by federal contract in the amount of \$25,000. These figures represent urgent or emergency medical care needs and not minimum medical care needs.

Improved methods of data collecting and record keeping have been established in connection with hospital services for the indigent, hospital and nursing home licensure. Additional improvements will be made as improved machine tabulating equipment becomes available.

The Hospital Advisory Committee and the Advisory Hospital Council provide guidance in the operation of the hospitalization program and the hospital licensing program respectively. The membership and activities of these two committees are described in the appropriate sections of this report.

DIVISION OF CHRONIC DISEASES

JAMES E. FULGHUM, M.D.
Director

Chronic diseases are still on the increase as a Florida health problem. The diseases of the heart, blood vessels, cancer and diabetes cause over 70 per cent of the deaths of Florida citizens. The chronic diseases also cause most of the prolonged disabilities experienced by many of the population.

Measures for the prevention, early detection and adequate treatment of chronic diseases have been shown to be increasingly important if good health, particularly in the middle and older age groups, is to be maintained.

Further attention is indicated in categorical areas such as arthritis, problems of the neurological and sensory systems, health of the aging and other areas as out-of-hospital care of the chronically ill at such time as adequate staff is available.

The director of this division serves as a member of the Florida Cancer Council, the Florida Policy and Coordinating Council for Cardiovascular Diseases, the Executive Committee of the American Cancer Society, Florida Division, and as a director of the Florida Diabetes Association. Thus, a good working relationship with the major voluntary health agencies within the state is insured.

In 1962 the staff of the division provided the following field consultant visits by category of disease: cancer—97, heart—43, diabetes—3, and prevention of blindness—23, total 166.

During the year a Chronic Disease Planning Program for Florida was begun. A grant request for funds for such a program was submitted and approved by the U. S. Public Health Service (USPHS). Plans call for an assessment of the chronic disease problems in the state, an evaluation of the health resources of the counties and plans whereby the greater health needs of the community can be met.

CANCER CONTROL PROGRAM

In 1962 mortality from cancer in Florida continued to increase and retained its role as a major public health problem. Cancer mortality has increased yearly with an estimated 163.8 deaths per hundred thousand population in 1962. Factors in the increase are: (a) The Florida population is aging, where the spectre of cancer looms larger. The state now has approximately 16 per cent of its citizens in ages 60 or above. (b) Declining mortality of other disease killers. With cancer there evolves the inevitable paradox: as general public health improves, cancer becomes a greater problem.

Community Services

Tumor Clinics — During 1962, the Cancer Control Program (hereinafter called the Program) continued to work with the 24 approved and associated tumor clinics in the state. No new clinics were added.

These tumor clinics are staffed by private physicians of the community who serve without compensation. Ancillary personnel, such as tumor clinic secretaries, typists and tumor registry secretaries are paid by State Board of Health (SBH) with some assistance from the American Cancer Society, Florida Division. Volunteer workers also assist in the operation of the clinics.

The clinics provide consultation service without charge to all patients, private or clinic, when referred by their physician. Medically indigent patients who are known to have or suspected of having cancer are referred to the tumor clinic by a physician. The Program pays fees for outpatient diagnostic laboratory services and diagnostic X-ray procedures.

If hospitalization is required for treatment, and the patient presents a reasonably good prognosis, he may be hospitalized, if eligible, under either the Hospital Service for the Indigent (HSI) or the Public Assistance Recipients (PAR) programs for the necessary treatment.

Table 31 provides comparative information on cancer patient visits to these approved tumor clinics during the past three years.

Cancer Registries—The Program carried out its responsibility for insuring that approved tumor clinic registries conform to the standards of operation as published in the *American College of Surgeons Manual for Cancer Programs*. Minimum requirements for tumor clinics embrace the assigned professional staff, the clerical staff, cancer records maintenance of the tumor clinic registry and the case follow-up system. Tumor registry supplies and materials are furnished by the Program.

Consultation Services of an administrative and statistical nature were provided to tumor clinics during this report period. Each clinic

was visited at least twice during the year, with emphasis placed on the training of clerical and secretarial employees, the improvement of cancer registry procedures and the utilization of registry material in providing feedback of cancer data to the medical staffs.

Cervical Cytology Program for County Health Departments (CHDs) was continued for certain counties not having tumor clinics and not included in the Community Cancer Demonstration Project. This limited program provides for the screening of indigent postpartum cases being performed in the facilities of the CHD. The slides are read by local pathologists.

Special Projects

Research-Service Cervical Cytology Project—The special research service project providing for a public health nurse to screen medically indigent adult females by the Papanicolaou technique operated throughout 1962 at Duval Medical Center, Jacksonville. Funded by SBH, the project is conducted jointly by the Duval CHD, the Duval Medical Center and SBH, Cancer Control Program.

Last year 2208 women were screened. A biopsy confirmed rate of 18 cancers per each thousand women examined was revealed.

The objectives of the program are: (1) To demonstrate the feasibility of screening large numbers of women for cervical cancer by the Papanicolaou technique, the taking of the smears *to be done by a nurse*. To maintain a control group for study and comparison of the results. (2) To initiate a community service that will lead to salvaging a female population that is at the age of greatest value to the community and has responsibility for the care of many children and at the age of greatest risk from cancer of the cervix.

Community Cancer Demonstration Project—The Cervical Cancer Cytology Survey of recipients of Aid to Dependent Children grants (State Department of Public Welfare) was made possible by a grant from the USPHS and began screening procedures on June 6, 1960. Screening operations have been completed in 14 counties with a total of 7368 as of January 14, 1963. About 55 per cent of the target population is being examined.

There were 280 women among the 7368 examined who had abnormal cytology (Pap III, IV or V) or about 3.8 per cent.

Cervical cancer proven by biopsy and found as a result of this screening operation was 135 cases for a rate of 18 per thousand women examined or about one-half of those showing abnormal tests. Eighty per cent of the cervical cancer found is in the in situ (early) stage and 20 per cent are in the invasive stage. Women who were previously known to have cancer were eliminated from this survey. Table 34 is a summary of the results to date.

Women who are found to have abnormal cytology (Pap III, IV or V) are referred to the appropriate tumor clinic for diagnosis and if the biopsy is proven to be positive for cancer, treatment is initiated under the PAR program.

The state, district and county welfare units have been most helpful in the implementation of the program by health and welfare personnel.

An exhibit based on the project was constructed by the USPHS, Cancer Control Program, and shown at the 1962 American Public Health Association meeting in Miami Beach and at the 1962 Southeastern States Cancer Seminar at West Palm Beach.

A "Pic-tape" was made which documented the steps involved in the planning and implementation of a screening program in a county and was used to assist counties preparing to do a survey.

Training and Education

Workshop for Tumor Clinic Secretaries — A one-day regional workshop was held for tumor clinic secretaries and cancer registry personnel who had not previously attended a workshop. The agenda covered clinic operations, duties and services, with emphasis on improvement of cancer registry procedures. The workshop was sponsored by SBH with the American Cancer Society, Florida Division, participating.

Filmstrip and Panel Discussion on Cancer Registries—The Cancer Control Program in cooperation with the Florida Cancer Council, the Florida Association of Tumor Clinic Directors and USPHS has prepared a 25 minute filmstrip of a panel discussion on cancer registry problems, uses and values to the cancer patient, patient's physician, hospital and community.

Southeastern States Cancer Seminar—A three-day seminar was held in West Palm Beach in November 1962. It was sponsored and supported by the Palm Beach County Medical Society, this division and the American Cancer Society, Florida Division. A total of 271 physicians attended, with 33 from outside the state.

Legislation and Administration

Care of the Advanced Cancer Patient—Facilities for care of these patients continue to be one of the urgent problems facing Florida communities. Existing laws do not provide hospitalization for these patients unless there exists a medical or surgical emergency. The availability of an out-of-hospital service for their care would result in a decrease in the number of hospital admissions and provide a savings in funds by a reduction in the length of hospital stay for those admitted.

Florida Cancer Council consists of members representing the Florida Medical Association, the American College of Surgeons, the Florida Division of the American Cancer Society, the Florida Association of Tumor Clinic Directors and the SBH. It meets twice a year to formulate policies for tumor clinics, to discuss cancer control problems and to make recommendations relative to the improvement of cancer control programs. A history of the Florida Cancer Council was recently prepared.

Association of Tumor Clinic Directors played an increasingly greater role in cancer control activity during 1962. This program works in close coordination with the association.

New Legislation Affecting the Cancer Program—The last Legislature failed to pass the proposed Cancer Anti-Quackery Law. However, this Program, working in liaison with the Florida Medical Society, the American Cancer Society, Florida Division, the Florida Cancer Council, the Florida Association of Tumor Clinic Directors and other interested groups, is supporting a newly proposed bill along this same line for presentation to the 1963 Legislature.

Women who are found to have abnormal cytology (Pap III, IV or V) are referred to the appropriate tumor clinic for diagnosis and if the biopsy is proven to be positive for cancer, treatment is initiated under the PAR program.

The state, district and county welfare units have been most helpful in the implementation of the program by health and welfare personnel.

An exhibit based on the project was constructed by the USPHS, Cancer Control Program, and shown at the 1962 American Public Health Association meeting in Miami Beach and at the 1962 Southeastern States Cancer Seminar at West Palm Beach.

A "Pic-tape" was made which documented the steps involved in the planning and implementation of a screening program in a county and was used to assist counties preparing to do a survey.

Training and Education

Workshop for Tumor Clinic Secretaries — A one-day regional workshop was held for tumor clinic secretaries and cancer registry personnel who had not previously attended a workshop. The agenda covered clinic operations, duties and services, with emphasis on improvement of cancer registry procedures. The workshop was sponsored by SBH with the American Cancer Society, Florida Division, participating.

Filmstrip and Panel Discussion on Cancer Registries—The Cancer Control Program in cooperation with the Florida Cancer Council, the Florida Association of Tumor Clinic Directors and USPHS has prepared a 25 minute filmstrip of a panel discussion on cancer registry problems, uses and values to the cancer patient, patient's physician, hospital and community.

Southeastern States Cancer Seminar—A three-day seminar was held in West Palm Beach in November 1962. It was sponsored and supported by the Palm Beach County Medical Society, this division and the American Cancer Society, Florida Division. A total of 271 physicians attended, with 33 from outside the state.

Legislation and Administration

Care of the Advanced Cancer Patient—Facilities for care of these patients continue to be one of the urgent problems facing Florida communities. Existing laws do not provide hospitalization for these patients unless there exists a medical or surgical emergency. The availability of an out-of-hospital service for their care would result in a decrease in the number of hospital admissions and provide a savings in funds by a reduction in the length of hospital stay for those admitted.

Florida Cancer Council consists of members representing the Florida Medical Association, the American College of Surgeons, the Florida Division of the American Cancer Society, the Florida Association of Tumor Clinic Directors and the SBH. It meets twice a year to formulate policies for tumor clinics, to discuss cancer control problems and to make recommendations relative to the improvement of cancer control programs. A history of the Florida Cancer Council was recently prepared.

Association of Tumor Clinic Directors played an increasingly greater role in cancer control activity during 1962. This program works in close coordination with the association.

New Legislation Affecting the Cancer Program—The last Legislature failed to pass the proposed Cancer Anti-Quackery Law. However, this Program, working in liaison with the Florida Medical Society, the American Cancer Society, Florida Division, the Florida Cancer Council, the Florida Association of Tumor Clinic Directors and other interested groups, is supporting a newly proposed bill along this same line for presentation to the 1963 Legislature.

TABLE 33
TUMOR CLINICS AND SERVICES

COUNTY	LOCATION OF CLINIC	FIRST EXAMINATION			TOTAL VISITS		
		1960	1961	1962	1960	1961	1962
Alachua	Alachua General Hospital	32	57	87	108	148	209
Alachua	University of Florida	548	1,354	592	1,929	4,661	3,162
Bay	Bay Memorial Hospital	70	70	66	606	526	494
Broward	Broward General Hospital	94	177	80	432	738	543
Dade	Jackson Memorial Hospital	314	406	273	2,556	3,788	3,420
Dade	Mount Sinai Hospital	174	177	205	784	1,001	1,238
Dade	St. Francis Hospital	88	151	118	742	902	798
Dade	Variety Children's Hospital			60			710
Duval	Duval Medical Center	463	502	559	4,457	4,411	5,024
Duval	St. Vincent's Hospital	100	105	126	1,282	1,570	1,669
Escambia	Escambia General Hospital	217	159	195	1,548	1,698	2,462
Hillsborough	Tampa General Hospital	213	166	250	3,095	2,950	3,864
Lee	Lee Memorial Hospital	37	30	17	136	172	44
Leon	Tallahassee Memorial Hospital	133	187	204	1,139	1,382	1,281
Manatee	Manatee Veterans Mem. Hospital	13	24	28	185	219	235
Marion	Munroe Memorial Hospital	67	84	100	87	120	150
Okaloosa	White-Wilson Clinic		45	38		100	151
Orange	Orange Memorial Hospital	164	172	255	1,162	2,034	2,819
Palm Beach	St. Mary's Hospital	152	222	144	967	1,154	919
Pinellas	Mound Park Hospital	316	351	287	1,189	1,783	1,813
Polk	Lakeland General Hospital	181	218	338	1,223	1,690	1,882
Sarasota	Sarasota Memorial Hospital	33	42	60	212	217	311
St. Lucie	Fort Pierce Memorial Hospital			29			130
Volusia	Halifax District Hospital	26	31	39	135	174	205
TOTAL		3,435	4,730	4,150	23,974	31,438	33,532

TABLE 34
AID TO DEPENDENT CHILDREN RECIPIENTS, NUMBER
SCREENED, ABNORMAL CYTOLOGIES AND CERVICAL
CANCER FOUND. SELECTED AREAS OF FLORIDA
JUNE 6, 1960—JANUARY 14, 1963

COUNTY	Total ADC Recipients	Screenings		Abnormal Cytology		Cervical Cancer Found	
		Number	Per Cent	Number	Per Cent of Screenings	Number	Rate per 1000 Screened
Dade	2,387	1,039	43.5	42	4.0	35	33.6
Monroe	100	57	57.0	2	3.5	0	.0
Broward	1,001	436	43.5	19	4.3	19	43.5
Palm Beach	806	506	62.7	21	4.1	12	23.7
Lee	116	67	57.7	6	8.9	2	29.8
Sarasota	167	75	44.9	2	2.6	0	.0
Manatee	157	81	51.6	3	3.7	0	.0
Pinellas	987	554	56.1	18	3.2	13	23.4
Hillsborough	1,730	990	57.2	42	4.2	15	15.1
Polk	607	469	77.3	30	6.4	17	36.2
Orange	1,309	892	68.1	31	3.5	7*	7.8
Alachua	607	374	61.6	7	1.8	8*	21.3
Marion	695	467	67.1	17	3.6	7*	14.9
Volusia	794	445	56.0	13	2.9		
Duval	3,149	916		27	2.9		
Results to Date	14,612	7,368	50.4	280	3.8	135	18.3

*Incomplete

DIABETES CONTROL PROGRAM

As people live longer the number of diabetics in the state is expected to continue to increase. In 1962 approximately 745 Florida residents died from diabetes and the annual death rate based on these preliminary figures was 13.9 deaths per 100,000 population. Diabetes ranked as the ninth leading cause of death in 1962. Nearly 92 per cent of the deaths due to diabetes mellitus during the past 10 years occurred in groups age 45 and older. Deaths resulting from this disease are greater among females than males.

The first marked increase in the death rate took place with a sharp rise in the rates for nonwhites between age groups 25-34 and 35-44. This was mainly due to an increase in deaths among nonwhite females. This increase continues to a peak in the 55-64 age group. First notable rate increase among the whites occurred between 35-44 and 45-54 age groups and continued to increase in greater magnitude until reaching its peak in the eldest age group.

Most authorities now agree that the disability caused by complications of diabetes is extensive. Retinitis due to this disease now ranks equal to glaucoma as a cause of blindness. Arteriosclerosis caused by diabetes is a large etiological factor in deaths from coronary occlusion.

Community Services

Insulin Distribution—Increased insulin allocations to the counties have insured adequate amounts of insulin and have stimulated case-finding.

A total of 2977 medically indigent patients are now receiving all or part of their insulin from SBH through the CHDs. The average cost is estimated at \$18.00 per patient per year. This distribution program has the built-in features of a local diabetes registry which facilitates follow-up, relative casefinding programs and serves as a reliable source of data for program evaluation.

Casefinding and Service to the Patient—Diabetes, in most cases, can be controlled by proper treatment. However, this treatment is most effective if the diabetes is diagnosed early. Tests should be made annually on relatives of known diabetics because of the higher incidence of the disease among this group.

Casefinding activities have been primarily in three areas but not limited to them: office of the physician, community diabetes screening surveys and relative testing programs.

Blood sugar examination two hours after a (test) meal is considered the method of choice. Testing relatives is most productive in new casefinding, and health departments and communities are encouraged to do this type of screening at regular intervals. In many

areas where the laboratory resources for doing blood sugars are not geared to large surveys, it may be necessary to do urine testing with some selected blood sugar examinations.

Education and Training

Timely Topics, a monthly bulletin for diabetes, is prepared and sent to 5000 persons primarily diabetics or their relatives.

There is great need of more lay diabetes societies about the state. At this time there are only four active area societies: Bradenton, Miami, St. Petersburg and Fort Lauderdale. The Florida Diabetes Association has recently employed a part-time person who is well experienced in the organization and establishment of county societies. This division will work very closely with the Florida Diabetes Association in this joint endeavor.

Large coordinated community diabetes screening programs are being conducted in Florida during Diabetes Week at CHDs. One county screened 3800 persons in two days.

Professional Education

The Florida Diabetes Seminar for physicians (about 100 attended) was held in October in Miami. The Florida Diabetes Association, University of Miami Medical School and Division of Postgraduate Medicine of the University of Florida College of Medicine cooperated in the planning and presentation.

HEART DISEASE CONTROL PROGRAM

Cardiovascular diseases continued as the principal cause of death in the state in 1962 accounting for over one-half (27,199) of all Florida resident deaths. Four of the major sub-categories of cardiovascular disease are included within the 10 leading causes of death in Florida. These are: diseases of the heart—18,900 deaths or 36 per cent; cerebral vascular diseases—6197 or 11.8 per cent; general arteriosclerosis—880 or 1.7 per cent; other diseases of the circulatory system—822 deaths or 1.6 per cent. The cardiovascular death rate has experienced a steady increase during the past 10 years, rising from a rate of 456 deaths per 100,000 population in 1952 to the present rate of 508.

Arteriosclerotic heart disease has been one of the primary contributors to this rising rate. While infective and hypertensive heart diseases have shown a decline in rate over the previous 10 years, the aortic aneurysm death rate (included in other diseases of the circulatory system listed above) has probably experienced the most drastic gain, more than doubling during the period.

The Florida Policy and Coordinating Council for Cardiovascular Diseases—A council of advisors representing voluntary and official

agencies interested in the problem of cardiovascular diseases and their impact on the community was organized and held its first meeting in Jacksonville in May 1962. Membership of the Council is: Florida Heart Association, Florida Crippled Children's Commission, Florida Medical Association, Florida Industrial Commission, Vocational Rehabilitation Services, State Department of Public Welfare and SBH. The Florida Heart Association takes the leadership for the coordination of the activities of the Council. The following areas in which the Council would act as an advisory group were determined: penicillin prophylaxis, rehabilitation, professional education, lay education, heart clinics, case-finding and rheumatic fever identification. This Council meets quarterly.

Community Services

Penicillin Prophylaxis and Rheumatic Fever Registry—The prevention of recurrences of rheumatic fever and rheumatic heart disease is a continuous task. Long term prophylaxis with chemotherapeutic agents is of great value in preventing subsequent attacks of rheumatic fever. Such a program is expensive and for the medically indigent becomes an impossibility unless assistance is provided.

This Program began a secondary rheumatic fever prevention program several years ago. Prophylactic medication is provided without cost for the medically indigent rheumatic fever patient through his physician. A registry is kept on all of these patients who are active cases. As of December 31, 1962, almost 600 rheumatic fever patients were listed. It is realized that many patients are not included. Some counties have agencies which dispense prophylactic medication and do not maintain a registry. Another group not registered are those patients receiving medication from private physicians.

Health Profile Screening Clinic—In cooperation with the Jefferson CHD and with the assistance of the interested community groups, a Demonstration Health Profile Screening Clinic has been established in the CHD. The purpose is to lead to the detection of common chronic diseases by the use of screening examination known to be of value. The objectives are: to offer multiple screening tests to the public; to refer positive screenees to the physician of their choice; and as a health education technique to promote routine health examinations. Equipment and personnel have been obtained for the clinic and patient screening is scheduled to begin early in 1963. Physicians practicing in the county are participating.

Special Projects

Streptococcal Diseases—Morbidity reports reveal an increasing incidence of streptococcal infections during the past 10 years. The incidence of reported infections in the state has risen from 15.6 per 100,000 population in 1951 to 110.7 in 1961. This was reflected

rather uniformly throughout the state with one notable exception: Hillsborough County invariably reported many more cases of streptococcal infections and rheumatic fever than any other county. In order to obtain additional data on this problem, two survey projects were proposed and accepted by that CHD.

Telephone Survey—Physicians in the county most apt to treat cases of rheumatic fever were contacted by telephone and the number of cases seen by them during the month determined. A further study of each case was made including a history and pertinent data from the physical examination performed by the attending physician. A total of 13 new cases has been reported to date.

Throat Smear Survey—In cooperation with the Hillsborough CHD, National Children's Cardiac Hospital of Miami and the SBH, a second survey involved obtaining throat smears on a representative sample of school children from 20 elementary schools in that county. This survey was conducted over a three-day period, with each throat sample being examined for Grade A beta hemolytic streptococci by the use of both conventional laboratory methods and fluorescent antibody staining techniques. Preliminary laboratory reports indicate that the prevalence of beta hemolytic streptococci is comparable to that obtained in school children in surveys conducted elsewhere.

Stroke Rehabilitation Project—Hillsborough County—A four-phased stroke rehabilitation project has been designed to take place in the Hillsborough County Hospital for a one year period: phase one consists of the training of nurses, nurses aids and orderlies in how to handle stroke patients; the second is the rehabilitation of the stroke patient; the third deals with the education of the relatives of the stroke patient on home care upon discharge; and the last phase consists of follow-up in the home by the public health nurse and physical therapist. Throughout the project, the patient will be classified as to the degree of disability in order to show the amount of improvement resulting from rehabilitation.

The following agencies have cooperated in developing this project: State Department of Public Welfare, Society for Crippled Children and Adults, Hillsborough CHD, Vocational Rehabilitation Service, Hillsborough County Heart Association and the SBH.

Congestive Heart Failure—Designed by the Dade County Department of Public Health, physicians studied congestive heart failure patients at Jackson Memorial Hospital, Miami. Patients were visited at home monthly by a public health nurse who helped supervise the diet, home care and medication of each patient. Control group patients were referred to the hospital. The result of this study over a period of one year has been encouraging in that the study group patients required some 400 days less hospitalization than the control group at an estimated saving in hospital costs of \$15,000. Benefits of the

program are attributed in part to the patients' better response to the interest and sympathy demonstrated by the public health nurse in her home visits as contrasted to a large hospital outpatient service.

Training and Education

Nurses' Cardiovascular Seminars—For several years the Florida Heart Association has sponsored a short course for hospital and public health nurses at one of the university hospitals. This division has been requested to assist with the evaluation of these seminars and to co-sponsor the training activities.

Nurses' Physical Rehabilitation Courses—Because of the recent emphasis on and demand for rehabilitation in the home, there is a growing need for public health nurses to assist in the provision of these services. In some areas patients are totally dependent on home nursing services for physical rehabilitation.

This new demand has resulted in the need of more advanced physical rehabilitation for public health nurses. During 1962 this division provided scholarships for 31 nurses to take short courses in physical rehabilitation at Kenny Rehabilitation Institute, Minneapolis, and New York Medical Center (Rusk Institute), New York.

Dental Card Program—The ever-increasing number of cardiac patients who are receiving long-term anticoagulant and antibiotic therapy present a potential problem to dentists performing surgical procedures on them. In order to aid physicians in advising dentists of their patients' health status, a wallet size card was designed, printed and issued to all physicians in Florida likely to be attending this type of patient. The card permits the physician to identify by means of a check mark the specific condition for which the patient is receiving long-term therapy. In addition to the protection afforded the individual patient, it is hoped that the use of these cards may result in improving the exchange of medical information between the two professions.

Workshop—Helping the Hemiplegic to Help Himself—During the period June 11 - 23, 1962, a workshop was jointly sponsored by the Florida Nurses Association and the SBH in the following cities: Jacksonville, Bartow, Sarasota, St. Petersburg and Ft. Walton Beach. A physical therapist, experienced in teaching, conducted the workshop on practical methods of helping the hemiplegic to help himself. A total of 250 nurses attended these meetings.

PREVENTION OF BLINDNESS PROGRAM

During 1962 the Prevention of Blindness Program has placed major emphasis on glaucoma, the eye disease which ranks second to cataracts as a major cause of blindness in Florida. Glaucoma control has become a problem of increasing magnitude because of the growing numbers in the older age groups in our population. It is far more common than is realized and affects one person in 50 over the age of 40. Although its cause is still unknown it can be treated. Good vision can be preserved for many years if the disease is discovered early and treated continuously. Undetected glaucoma causes blindness.

In order to promote activities which lead to the prevention of blindness, the program has established the following objectives: to assist with the establishment and maintenance of screening centers throughout the state which will lead to early detection of glaucoma and other disorders leading to blindness; to promote professional education to physicians and nurses in techniques needed to implement early detection; to conduct public information and lay education activities; and to develop statistical data on numbers and kinds of people who contract diseases which lead to blindness.

With assistance of the USPHS, the Program has obtained the service of a public health advisor to assist the director of this division in this area.

Projects which got underway and screening events which have taken place during the year include establishment of a Glaucoma Detection Center in Lakeland. This project is sponsored by the Polk County ophthalmologists who alternate in serving the clinic. Presently, two public health nurses, who have been trained in tonometry by the ophthalmologists in charge are employed on a five-day week basis. The second nurse was added quite recently and is being trained in low vision aids so that additional services can be added to the Program.

Volunteers throughout the county assist the nurses with registration of applicants and with visual acuity examinations. All county residents are eligible for the screening examination. Promotional media such as newspaper articles, spot radio announcements, posters, "word-of-mouth" and pamphlets have stressed the need for those persons over 40 to have the examination every two years.

Follow-up of those persons found to be suspects of the disease has been maintained by the CHD. They are referred to their ophthalmologist for a more complete eye evaluation. A report of findings in this project is found in Table 35.

Another activity of this Program included a Glaucoma Screening Demonstration Exhibit at the American Public Health Association Convention in Miami Beach in October. Those attending the conference were offered examinations.

The Program also provides assistance to voluntary agencies and civic clubs who are interested in eye care by providing consultation, assisting with equipment and medical supplies needed for short-term screening programs, participating in the orientation of volunteer workers, promoting follow-up assistance from the CHD staffs and tabulating results of screening activities. A pamphlet entitled, "What Everyone Should Know About Glaucoma and Its Early Detection," was developed.

This Program of the Division of Chronic Diseases maintains close liaison with all of the organizations interested in prevention of blindness.

TABLE 35

POLK COUNTY GLAUCOMA SCREENING PROGRAM,
PERSONS EXAMINED AND SUSPECTS DISCOVERED,
BY AGE GROUP, APRIL-DECEMBER, 1962

Age	Persons Examined	Suspects Discovered	
		Number	Per Cent of Examined
Under 45	2748	25	.9
45-54	1669	36	2.2
55-64	1446	37	2.6
65-74	1350	51	3.7
75-84	464	28	6.0
85+	87	7	8.0
Total	7764	184	2.4

Follow-up data:
Those referred to ophthalmologists for diagnoses _____ 184

a. Cases diagnosed glaucoma	85
b. Borderline glaucoma cases	17
c. Cases closed — no glaucoma	40
d. Pending cases still being followed	40
e. Lost to follow-up (cannot locate)	2

Number of persons referred who could not read 20/40 _____ 1639

DIVISION OF HOSPITALS AND NURSING HOMES

GEORGE W. HOOVER, M.D.
Acting Director

This division has as its principal responsibilities: regulatory activities in the areas of hospital and nursing home licensure, and administration of the Hospital Service for the Indigent program. Associated with the regulatory duties are related consultative services. The division, which has for a number of years conducted a wide variety of training activities in the area of nursing home activities, established a separate section for plans, training and education this year.

The hospital licensure program is designed to develop, establish and enforce standards "for the care and treatment of individuals in hospitals" and "for the construction, maintenance and operation of hospitals which, in the light of advancing knowledge, will promote safe and adequate treatment of such individuals in hospitals." This is accomplished through the establishment of rules and regulations, regular inspection of existing hospitals, consultations in the office and in the field with those developing new facilities, review of plans for new hospital construction and for additions, alterations and renovations to existing hospitals. Hospitals maintaining the required standards are licensed annually.

The nursing home licensing program is designed to provide for the development, establishment and enforcement of standards for "the health, care and humane treatment of persons in nursing homes" and for "construction, maintenance and operation of such institutions which in the light of existing knowledge will insure safe and adequate care, treatment and health of persons in such homes." Responsibility for licensure programs is shared with county health departments (CHDs) and the local authorities responsible for fire, electrical, plumbing, building and zoning inspections. Rules and regulations have been promulgated to provide minimum standards.

The Hospital Service for the Indigent program is made up of three programs which are nevertheless related. The state-county financed program provides hospitalization for the medically indigent. The federal-state financed program, whose administration is shared by the State Department of Public Welfare, provides hospitalization for the indigent who are public assistance recipients. A program operating entirely with federal money provides payments for hospital and medical services rendered to Indians living on reservations within the state. However, due to the limitations of the Indian and public assistance programs, individuals in these categories may in certain circumstances be hospitalized under the state-county financed programs.

HOSPITAL LICENSING PROGRAM

The close of 1962, marked the end of five and one-half years of the State Board of Health's (SBH) administration of the mandatory hospital licensing law. Each year has shown a marked increase in the activities of this program. Hospital construction continues to increase annually, both as to the new facilities and additions to and/or renovations of existing facilities. The reviewing of construction plans, therefore, has consumed an increasing proportion of the staff's time. Consequently, there was a substantial decrease in the number of hospitals surveyed in the state during the past year. Other factors contributing to the reduction in the number of hospital surveys made were changes in staff personnel, and the ever-increasing demands of the staff's participation in the rapidly expanding nursing home licensure program. The division, therefore, has retrogressed in its attempt to survey yearly all those hospitals subject to licensure. Greater emphasis was placed on surveying of renovations, alterations and new construction programs when completed. Also, during the year an even greater portion of the consultant staff's time than in past years was devoted to a few hospitals which still were encountering difficulties in conforming to licensure standards. Thus, priority was given to handling expeditiously problems of these select hospitals, in an all-out effort to extend all possible assistance to their self-improvement programs. This is reflected in the decreasing number of unlicensed hospitals in this state.

The hospital licensure program is served by the Advisory Hospital Council. Its members are appointed by the Governor and in 1962 included the State Health Officer, who serves as chairman ex officio; A. W. Forehand, Tallahassee; W. W. Richardson, M.D., Graceville; Raymond King, M.D., Jacksonville; Hon. James H. Sweeney, Jr., DeLand; John F. Wymer, West Palm Beach; and Walter D. Griffin, Jr., Jacksonville.

The Council met in Jacksonville on April 21, 1962 and took the following action: recommended that four substandard hospitals be denied a license; that one substandard hospital in the process of correcting deficiencies be issued a provisional license; licensure of four previously substandard hospitals now substantially in compliance with minimum standards; that seven substandard hospitals engaged in the construction of new facilities be issued provisional licenses pending completion of such construction. Adoption of 12 amendments to the Rules, Regulations and Standards for Licensing of Hospitals (approved by SBH); and received the opinion of the staff attorney that authority to license dental hospitals is contained in the present law and in the Rules and Regulations.

Educational activities in various areas of hospital construction were continued. Included were advisory consultation with hospital management and architects, participation in institutes and association

meetings, distribution of guide materials and educational materials offered by authoritative agencies. In October this division sponsored jointly with the Florida Architects Association and the Florida Engineers Association a two-day Seminar at the SBH on hospital and nursing home construction and design.

At the beginning of the fiscal year, July 1, 1962, the ready-reference hospital file system was put into service, now making accessible information and statistics for the division's use and that of other agencies concerned with the state's hospital industry.

A new phase developed in the hospital licensure program during the year. There is a growing interest in the nursing home industry in securing a license for certain of these institutions as chronic disease and/or rehabilitation hospitals, which would be classified as special hospitals. Conversely, some hospitals have demonstrated interest in assigning sections of the hospital plant to long-term care, under the nursing home licensure program. This division has concerned itself with this problem, particularly as it pertains to the current regulations for hospital licensure.

Table 36
HOSPITAL EVALUATION STATISTICS
1960 - 1962

	Calendar Year		
	1960	1961	1962
Hospital accessions during year	3	8	7
Hospitals ceasing operations during year ...	1	3	2
Hospitals subject to licensure			
December 31	173	178	183
Licensed hospitals on December 31	147	166	177
Unlicensed hospitals on December 31	26	12	6
Licensed hospital beds, December 31	*17,311	17,971	18,691
Unlicensed hospital beds, December 31	815	282	191
Licensed hospital bassinets, December 31 -	2,366	2,431	2,502
Unlicensed hospital bassinets,			
December 31	125	45	17
Hospital plans reviewed during year	75	87	125
Hospital surveys for licensure	92	106	73
Other hospital consultations in the field	—	—	20

*Estimated

NURSING HOME LICENSING PROGRAM

The nursing home construction program continued to grow in 1962. There was a noticeable increase in public enthusiasm for the program, due in part to greater CHD participation, and to the realization by private capital of the growing market for these facilities. The boom in new construction caused many of the existing homes to recognize that their facilities needed upgrading to meet competition, which resulted in an increase of plans for renovations and additions submitted for review. At the end of the year, statistics showed a decrease in the number of licensed homes for the aged: 82 in 1961 and 69 in 1962. This loss was offset by an increase in the number of licensed nursing homes, 248 in 1961 and 258 in 1962. Patient accommodations in homes for the aged decreased from 1696 beds in 1961 to 1462 beds in 1962. The nursing homes showed a gain from 8370 licensed beds in 1961 to 9664 licensed beds in 1962. There were 10 nursing homes, with 141 beds, and six homes for the aged, with 38 beds, that ceased operation in 1962.

There were 274 sets of plans reviewed in 1962 with approximately 10 per cent beginning construction. The new construction, for the most part, was for the care of residents who were financially solvent and could pay \$200 and up a month for their care. The need for this type accommodation appears to have been met and some of the later constructed facilities were operating at less than 60 per cent of capacity.

There continued to be a great need for facilities for the indigent and some urban areas are facing problems in finding adequate accommodations for this type patient.

HOSPITAL SERVICE FOR THE INDIGENT PROGRAMS

Hospital Service for the Indigent (HSI), through the medium of state assistance, was first authorized by the Legislature in 1955. The operating plan provides for continuation of the unique concepts of coordination and cooperation between the SBH and the CHDs as displayed in the public health program and provides further for the active participation of the State Department of Public Welfare.

The Legislature authorized for the 1961-63 biennium an appropriation of \$2,050,000 as the state share of funds to match the required counties share at the rate of \$.50 per capita. During 1962 Gadsden, Gulf, Holmes, Lee, Wakulla and Washington Counties did not participate in the program. During the last half of 1962, Jackson County did not participate due to failure to appropriate funds.

For the 1961-63 biennium the sum of \$2,970,000 was provided by the Legislature to match federal funds for the hospitalization of public assistance recipients. This program is administered by SBH

TABLE 37

HOMES LICENSED UNDER FLORIDA NURSING HOME LAW
BY COUNTIES, 1962

COUNTY	TYPE OF FACILITIES				BED CAPACITY			
	Nursing Homes	Homes for the Aged	Homes for Spec. Serv.	Total Number	Nursing Homes	Homes for the Aged	Homes for Spec. Serv.	Total Number
Alachua.....	1	1	—	2	25	10	—	35
Bay.....	—	1	—	1	15	10	—	25
Bradford.....	1	—	—	1	84	42	—	126
Brevard.....	4	1	—	5	461	—	20	481
Broward.....	13	—	1	14	18	—	—	18
Clay.....	1	—	—	1	2080	384	—	2464
Dade.....	34	11	—	45	719	125	—	844
Duval.....	24	10	—	34	80	27	—	107
Escambia.....	4	2	—	6	8	—	—	8
Hamilton.....	1	—	—	1	—	24	—	24
Hardee.....	—	1	—	1	27	—	—	27
Hernando.....	1	—	—	1	25	—	—	25
Highlands.....	1	—	—	1	1110	64	59	1233
Hillsborough.....	29	1	3	33	36	10	—	46
Holmes.....	1	1	—	2	60	—	—	60
Indian River.....	2	—	—	2	106	24	—	130
Lake.....	5	2	—	7	114	—	—	114
Lee.....	3	—	—	3	47	—	—	47
Leon.....	2	—	—	2	23	—	—	23
Levy.....	2	—	—	2	207	15	—	222
Manatee.....	5	3	—	8	38	—	—	38
Marion.....	2	—	—	2	8	—	—	8
Martin.....	—	1	—	1	20	—	—	20
Monroe.....	1	—	—	1	10	—	—	10
Okeechobee.....	—	1	—	1	619	—	—	619
Orange.....	14	—	—	14	64	47	—	111
Osceola.....	3	4	—	7	398	219	—	617
Palm Beach.....	12	5	—	17	42	58	—	100
Pasco.....	3	4	—	7	1571	62	—	1633
Pinellas.....	38	4	—	42	375	121	—	496
Polk.....	15	6	—	21	64	—	—	64
Putnam.....	3	—	—	3	94	22	—	116
St. Johns.....	3	1	—	4	31	44	—	75
St. Lucie.....	2	2	—	4	350	—	—	350
Sarasota.....	7	—	—	7	62	50	—	112
Seminole.....	4	2	—	6	25	—	—	25
Sumter.....	1	—	—	1	26	—	—	26
Suwannee.....	1	—	—	1	640	73	82	795
Volusia.....	15	4	2	21	13	—	—	13
Washington.....	—	1	—	1	—	—	—	—
SUBTOTALS.....	258	69	6	333	9664	1462	161	11287
CEASED OPERATION IN 1962								
Columbia.....	1	—	—	1	12	—	—	12
Dade.....	1	—	—	1	10	—	—	10
Hillsborough.....	1	2	—	3	8	27	—	35
Lake.....	1	1	—	2	10	3	—	13
Orange.....	1	—	—	1	22	—	—	22
Palm Beach.....	1	—	—	1	17	—	—	17
Polk.....	2	1	—	3	13	5	—	18
St. Johns.....	—	2	—	2	—	23	—	23
Sarasota.....	1	—	—	1	5	—	—	5
Seminole.....	1	—	—	1	14	—	—	14
SUBTOTALS.....	10	6	—	16	141	58	—	169
TOTALS.....	248	63	6	317	9553	1404	161	11118

under the supervision of the State Department of Public Welfare pursuant to the terms of an agreement between the two agencies as directed by the Legislature. Revised projections estimate that the total program, including state funds, for the current biennium will approximate \$8,000,000.

Utilization of the state-county program of hospitalization decreased in 1962 in the major indices of admissions, days of hospitalization and applications processed for payment by 5.49 per cent, 6.47 per cent and 1.67 per cent respectively, when compared with 1961. Conversely, the public assistance recipients (PAR) hospitalization program showed a sharp increase of 15.53 per cent in admissions, 19.49 per cent in days hospitalized and 24.87 per cent in applications processed for payment over 1961. Table 38 outlines calendar year 1962 experience.

At the end of 1962 there were 162 hospitals participating in the HSI program. Per diem rates have been established for 111 of these hospitals. They had an average per diem rate of \$28.07, an increase of \$.96 or 3.54 per cent over the 1961 experience. This increase would have been greater had not a maximum per diem rate concept been introduced into the program, effective May 16, 1962. The remaining 51 participating hospitals were reimbursed on the basis of actual billing or \$15.00 per diem, whichever is less.

The members of the Hospital Advisory Committee were: H. Philip Hampton, M.D., Tampa, Chairman; Edward H. Jelks, M.D., Jacksonville; Frank J. Kelly, Miami, attorney-at-law; Mr. Fred Gill, Dade City, Pasco County Commissioner (replaced by Don J. Evans, Orange County Commissioner in October); Walter Weiss, Miami, Dade County Commissioner; Joseph R. McAloon, Hollywood, hospital administrator; and Ben P. Wilson, Ocala, hospital administrator.

The Hospital Advisory Committee held its first 1962 meeting in Jacksonville in March and recommended the development of a program of home nursing care; the revision of the Rules and Regulations to establish a maximum per diem rate of reimbursement to hospitals under the program; the revision of the Rules and Regulations to provide a negotiated per diem rate basis for new hospitals during the first year of their operation; and the revision of Rules and Regulations to permit rather than require submission of annual per diem cost statements from participating hospitals.

A second meeting was held in Jacksonville in August 1962 during which the Committee recommended a pilot home nursing care program be established in one or two counties having surplus HSI funds and in which nursing care services have been organized by joint community action; that the SBH request state funds on the basis of \$.50 per capita for the HSI program and that there also be established a Medical Assistance for the Aged program with these funds to be divided by the SBH for purchase of medical assistance to the needy

according to demonstrated needs; that the SBH and the State Department of Public Welfare explore the possibility of a state plan of Medical Assistance to the Aged which would incorporate approved hospital and medical care insurance provisions; that the Board of Health and the Department of Public Welfare study methods of creating a state fund for payments to vendors of health services for the aged needy sick which would be eligible for federal reimbursement under Public Law 86-778 and permit contributions by counties having the greatest need for such services while making funds equally available to all counties; and the investigation of methods that could be used in making payment to vendors of health insurance out of this state fund under the Kerr-Mills law.

The SBH continued its administration of the Reservation Indian program under a contract with the U.S. Public Health Service which provides hospitalization and medicare for those living in recognized Indian communities in Broward, Glades and Hendry Counties. The program is funded with federal monies at the rate of \$25,000 annually and provides benefits only where they are not otherwise authorized under state and federal programs. Benefits include inpatient and outpatient hospital services not available under the HSI and PAR programs of hospitalization, physicians' services, prosthetic appliances, eyeglasses and transportation to hospitals when medical conditions of beneficiaries so indicate.

TRAINING AND EDUCATION SECTION

The past year marked the first full year of operation of this section. A principal function is the provision of educational opportunities for professional and lay programs for the improvement of services rendered in medical care facilities. Personnel represent the specialties of nursing, nutrition, environmental health and church-related services. The academic preparation and work experiences of the four professional persons assigned also include the areas of administration, teaching and consultation, which contribute to planning, organizing and executing a variety of programs as reflected in the ensuing report.

Educational and Consultation Programs

In three prior years statewide annual short courses for nursing home administrators were presented at Florida State University in cooperation with its School of Nursing, the Florida Nursing Home Association and other interested agencies. The SBH assumed leadership responsibilities in the development and implementation of these courses. In recognition of the measure of growth nursing home personnel had attained in past programs, and with the advent of the Florida Institute of Continuing University Studies, it was felt that future short courses should be pursued through it. The Institute's Division of General Extension undertook the development of a fourth Annual Short Course

for Nursing Home Administrators, assisted by this agency and the Florida Nursing Home Association at the University of Florida, May 29 - June 1, with an attendance of 85 persons. Content encompassed the core areas of accounting and administration, including nursing personnel recruitment and pharmaceutical practices.

A third Annual Short Course for Negro Nursing Home Personnel was conducted at Florida Agriculture and Mechanical University, Tallahassee, June 25 - 29, with the joint sponsorship of the School of Nursing and the Florida Nursing Home Association.

The continuing education program of the Florida Nursing Home Association, Districts II and III, was carried on in 1962 with the selection of "Principles of Administration" as the subject. The staff participated in eight workshops with an attendance of 141. Five of the workshops, held exclusively for nurses, were focused on the administrative aspects of nursing service.

An instruction program on nursing homes and problems related to Florida's aged population was designed for the Conference on Geriatrics and long-term illness of the Florida Nurses Association was presented at Holy Cross Hospital, Fort Lauderdale, in April for the district membership. Staffs of the Dade and Broward CHDs shared in the planning and conducting of the session.

A noteworthy program was the presentation of a pilot policy level course on the environmental health factors in nursing homes in Jacksonville in June. The primary purpose of this activity was to test syllabus material prepared by the USPHS Chronic Disease Division, Washington, with the aid of the Communicable Disease Center, Atlanta; to provide an avenue for obtaining up-to-date information in the area; and to establish a basis for county leadership in the organization of similar local programs. Registrants included 33 persons from CHDs, together with representatives of the State Department of Public Welfare, the Florida Nursing Home Association, Division of General Extension and the SBH for a total of 46.

The First Seminar for Architects and Engineers on Nursing Home and Hospital Functional Design was conducted in Jacksonville in October through the sponsorship of the SBH, the Florida Association of Architects and the Florida Engineering Society. The purpose was to acquaint practicing members of the two professions with difficulties experienced in project plans submitted for nursing home and hospital construction, resolve mutual problems connected with the design of medical and related facilities, to exchange ideas and answer professional and lay questions which have come to attention in the process of plans reviewed. The theme was "Patient Care—The Objective of Design." There was an attendance of 56 persons exclusive of representatives of the Florida Nursing Home Association, Florida Hospital Association and the USPHS, participating as observers.

The objective of the church-related activity, initiated in the previous year, remained unaltered in 1962; namely, to gather, assemble and prepare for orderly presentation, information pertaining to church-related homes, to encourage clergy and lay leaders to study further the care needs of the enfeebled and aging as may be met by the development of such facilities; and to promote appropriate investigations and research in the church-related segment of the nursing home field. There were 30 conferences held with interested groups with a view to the establishment of nursing home facilities in church communities. Questions of financing facilities pose most of the difficulties. During the year, useful information on insurance coverage for nursing home care was collected.

The need for nursing home beds in the state is characterized by the fact that the Florida Development Commission, the agency assigned the administration of Hill-Burton construction grant funds, lists 40 counties as having no percentage need met in terms of acceptable nursing home beds. This situation is especially true in regard to the west Florida area generally and the critical lack of negro facilities in the entire state.

The dietary consultant assigned to the Program participated in the planning of educational projects being developed by the Section (See report of the Division of Nutrition elsewhere in this Report).

Training Program

In conferences with the faculty of The College of Architecture and Fine Arts, University of Florida, it is proposed to continue the summer fellowship arrangement made in 1962 whereby selected students would be given an assignment to design a medical care facility. This activity will consist of student design assignments, lectures by SBH staff members and field visits to various localities to observe nursing home operations. The initial design problem suggested has been the development of a design for a church-related nursing home.

Plans for the presentation of five fire protection conferences for paid and volunteer personnel of organized fire departments have been completed. The purposes are to better acquaint fire prevention personnel with nursing home and hospital fire prevention needs; to consider mutual problems; to consider solution to problems; to promote uniform interpretation of laws, rules and regulations and to develop cooperative working relationships of fire departments and health departments at the local level. Organizations represented in the planning include the State Fire Marshal's Office, the Florida Fire Chief's Association, Florida State Firemen's Association, Florida Nursing Home Association, Florida Hospital Association, State Civil Defense Agency, Florida Association of Architects, Florida Engineering Society and the Florida Association of County Health Officers. Accident Prevention Program of SBH personnel are also assisting.

Planning Cooperative State Programs

This office joined the State Department of Public Welfare in the establishment of a Joint Task Force Committee on Nursing Home Grading. In addition to the representation of the state's health and welfare agencies, this committee is composed of representatives of the Florida Nursing Home Association, philanthropic homes, the Association of County Health Officers, a major CHD and the medical profession. The objective is the development of a recommended evaluation system for use in connection with the State Department of Public Welfare Vendor Payment Program. Meetings have been held once a month since March. Work accomplished includes a patient classification schedule, patient referral summary form, patient evaluation and rating chart, and schedule for the classification of homes. These instruments will be tested under field conditions early in 1963.

The Nursing Home Administrators of Pinellas County made an appeal during the year to the Division of Vocational Education of the State Department of Education for initiation of a nursing aide training program. Its Health Occupation Consultant was assigned to explore this proposal. As a consequence, an advisory committee was established which included representation of the State Board of Nursing, SBH, Florida Nursing Home Association and a nurse from a junior college. A curriculum incorporating supervised practice in a nursing home was designed to conform to the Nurse Practice Act and to delimit functions of an aide.

Because of the critical shortage of negro nursing home beds in the state, an approach was made in November to Florida A and M University and as a result, the President suggested that the Dean of the University set up an inter-departmental exploratory committee to determine the feasibility of a study being undertaken.

Revision of Rules and Regulations

A Special Revisions Committee for nursing home rules and regulations continued to work through a series of meetings on the development of improved standards, particularly in the areas of nursing home care, staffing, physical facilities, drug handling and records. A preliminary draft was prepared and submitted not only to the Committee, but also to bureaus and divisions concerned with aspects related to their responsibility. The committee is composed of representatives of the SBH, CHDs and the Florida Nursing Home Association competent in the disciplines of medicine, nursing, environmental health, nutrition and safety.

Study of Nursing Care Needs—Progress in this project has been slow but steady due to its research implications. Tabulations and data collected are voluminous.

A deposit of resource material related to the multiple phases of the aging, medical care facilities and demographic data has been developed. To date some slides and posters have been prepared, but there is a serious need for increasing the current supply and expanding the scope of audio-visual aids. Information on educational programs conducted in other states by health departments and universities is being collected. References of regulatory programs of some states as well as reports of research and studies are now available.

Planning Cooperative State Programs

This office joined the State Department of Public Welfare in the establishment of a Joint Task Force Committee on Nursing Home Grading. In addition to the representation of the state's health and welfare agencies, this committee is composed of representatives of the Florida Nursing Home Association, philanthropic homes, the Association of County Health Officers, a major CHD and the medical profession. The objective is the development of a recommended evaluation system for use in connection with the State Department of Public Welfare Vendor Payment Program. Meetings have been held once a month since March. Work accomplished includes a patient classification schedule, patient referral summary form, patient evaluation and rating chart, and schedule for the classification of homes. These instruments will be tested under field conditions early in 1963.

The Nursing Home Administrators of Pinellas County made an appeal during the year to the Division of Vocational Education of the State Department of Education for initiation of a nursing aide training program. Its Health Occupation Consultant was assigned to explore this proposal. As a consequence, an advisory committee was established which included representation of the State Board of Nursing, SBH, Florida Nursing Home Association and a nurse from a junior college. A curriculum incorporating supervised practice in a nursing home was designed to conform to the Nurse Practice Act and to delimit functions of an aide.

Because of the critical shortage of negro nursing home beds in the state, an approach was made in November to Florida A and M University and as a result, the President suggested that the Dean of the University set up an inter-departmental exploratory committee to determine the feasibility of a study being undertaken.

Revision of Rules and Regulations

A Special Revisions Committee for nursing home rules and regulations continued to work through a series of meetings on the development of improved standards, particularly in the areas of nursing home care, staffing, physical facilities, drug handling and records. A preliminary draft was prepared and submitted not only to the Committee, but also to bureaus and divisions concerned with aspects related to their responsibility. The committee is composed of representatives of the SBH, CHDs and the Florida Nursing Home Association competent in the disciplines of medicine, nursing, environmental health, nutrition and safety.

Study of Nursing Care Needs—Progress in this project has been slow but steady due to its research implications. Tabulations and data collected are voluminous.

A deposit of resource material related to the multiple phases of the aging, medical care facilities and demographic data has been developed. To date some slides and posters have been prepared, but there is a serious need for increasing the current supply and expanding the scope of audio-visual aids. Information on educational programs conducted in other states by health departments and universities is being collected. References of regulatory programs of some states as well as reports of research and studies are now available.

TABLE 38
HOSPITALIZATION PROGRAMS
 APPLICATIONS PROCESSED AND APPROVED FOR PAYMENT
 FROM JANUARY 1, 1962 TO DECEMBER 31, 1962

	Public Assistance Recipients			Hospital Service for the Indigent		
	No. of Admissions	Days Hospitalized	Total Payments State & Federal	No. of Admissions	Days Hospitalized	Total Payments State & Local
Total, STATE	18,038	164,551	\$4,140,410.11	16,314	153,269	\$4,032,360.70
Alachua	312	2,525	76,522.85	196	1,435	42,298.29
Baker	82	731	17,364.99	41	230	5,784.49
Bay	205	2,028	53,134.91	185	1,337	37,437.12
Bradford	126	1,191	29,296.62	34	189	4,050.11
Brevard	147	1,146	31,896.59	316	2,781	77,323.53
Broward	506	5,274	123,203.34	865	9,792	235,485.94
Calhoun	167	1,308	26,244.98	24	146	2,854.88
Charlotte	82	662	18,108.08	24	199	6,301.54
Citrus	52	484	11,452.51	8	55	1,140.76
Clay	76	590	15,287.59	33	308	7,347.92
Collier	42	453	13,084.06	35	351	10,485.86
Columbia	330	2,971	56,543.00	79	575	11,303.56
Dade	1,901	22,754	714,196.84	2,288	26,888	820,228.68
DeSoto	82	587	10,271.70	41	444	8,345.05
Dixie	61	556	13,549.11	24	156	4,157.39
Duval	1,153	10,181	249,761.55	1,973	15,146	348,749.47
Escambia	914	7,713	209,643.19	361	3,842	108,870.42
Flagler	28	364	8,300.44	26	263	4,975.32
Franklin	122	800	16,312.01	49	401	9,118.38
Gadsden	250	2,402	52,010.95			
Gilchrist	26	270	6,576.15	16	116	2,792.03
Glades	18	170	2,966.83	11	99	1,955.05
Gulf	51	315	6,418.00			
Hamilton	143	1,114	20,089.25	30	300	7,080.40
Hardee	42	393	8,225.44	35	367	8,110.63
Hendry	38	498	9,897.94	34	329	3,647.31
Hernando	83	647	10,798.20	44	364	7,059.36
Highlands	95	722	16,444.96	76	802	17,701.97
Hillsborough	1,250	11,382	231,738.87	2,093	16,237	432,257.75
Holmes	347	2,571	59,362.86			
Indian River	121	759	20,478.86	61	570	15,672.74
Jackson	410	3,117	70,839.01	52	432	10,790.94
Jefferson	47	385	9,459.33	17	170	3,897.43
Lafayette	66	458	8,323.51	8	40	909.17
Lake	182	1,560	39,495.33	259	2,137	53,228.40
Lee	129	1,088	36,245.07			
Leon	386	3,432	87,914.63	181	1,507	39,845.47
Levy	124	1,168	27,922.04	20	153	4,138.14
Liberty	63	548	11,396.59	9	60	1,085.44
Madison	186	1,389	34,741.44	44	293	7,123.97
Manatee	211	2,086	51,826.91	186	2,329	59,627.23
Marion	416	4,008	108,796.20	123	1,581	41,662.86
Martin	60	444	13,368.32	53	441	13,502.38
Monroe	173	1,908	54,312.63	90	687	20,208.06
Nassau	126	1,140	23,420.30	72	451	9,188.77
Okaloosa	282	1,793	44,140.23	160	935	25,702.58
Okeechobee	39	388	6,778.78	10	91	2,044.82
Orange	708	7,240	180,548.28	818	8,867	230,134.14
Osceola	140	1,203	20,533.36	46	346	6,272.88
Palm Beach	542	5,298	152,437.46	1,243	11,968	343,211.68
Pasco	127	1,032	22,797.38	126	928	19,964.10
Pinellas	880	8,578	212,830.07	1,057	12,645	316,155.38
Polk	514	4,803	114,668.16	1,435	10,970	251,182.89
Putnam	339	2,600	60,275.68	110	818	21,540.24
St. Johns	155	1,334	34,204.34	176	1,581	39,317.15
St. Lucie	148	1,341	38,699.29	135	1,792	53,300.69
Santa Rosa	352	2,791	68,722.93	45	342	8,681.37
Sarasota	221	2,036	58,607.83	208	2,262	65,141.78
Seminole	227	2,064	55,877.17	107	1,187	31,993.25
Sumter	80	664	17,077.18	45	320	7,509.28
Suwannee	299	2,075	35,476.03	49	359	6,454.73
Taylor	130	1,081	28,323.08	37	235	5,638.73
Union	104	1,036	16,187.75	14	136	2,961.27
Volusia	523	5,334	131,615.36	340	3,253	81,718.34
Wakulla	70	581	14,905.42			
Walton	478	2,752	57,617.89	37	231	5,691.19
Washington	249	2,235	50,842.46			

BUREAU OF SANITARY ENGINEERING

169

DAVID B. LEE, M.S., Eng.
 Director

SIDNEY A. BERKOWITZ, M.S., Eng.
 Assistant Director

The major activities continued as in previous years to involve environmental programs in the fields of water supply, domestic and industrial waste disposal, air pollution and shellfish control. The increasing volume of such activities was further recognized when upon recommendation of the Acting State Health Officer, the Board on June 24 approved the creation of two new divisions within the bureau.

The Division of Industrial Waste was established with personnel formerly assigned to the Division of Waste Water and those responsibilities relating to industrial waste problems were placed within this new division. The new division was also assigned responsibility in the air pollution control program of the bureau.

The Division of Special Services was assigned responsibilities covering the bedding, shellfish control and miscellaneous programs, including subdivisions, plumbing and private water and waste disposal systems.

Early in the year a selected group of sanitary engineering consultants, appointed by the Acting State Health Officer, commenced a review of the programs and activities of the bureau and its relationship to other agency activities as well as to the county health department (CHD) programs. The consultants named to make the study are George E. Simons, Jr., B.S.S.E., of Jacksonville, the first State Sanitary Engineer of Florida, as Chairman; Fred A. Eidsness, Ph.D., of Gainesville; Howard W. Chapman, B.S., M.P.H., of the U. S. Public Health Service (USPHS) (Region IV); and William E. Dunn, M.S., Sanitary Engineer of the Pinellas CHD. The continuing review by the consultants' group is expected to develop recommendations which will provide that the activities of this bureau in the coming years will best serve the needs of the state and its ever increasing population.

Personnel losses and recruitment difficulties reached a most serious level during the latter part of the year. In view of the critical nature of the problem, wherein at one time there were 10 professional vacancies in a force of 24 assigned to central office duties, action was instituted by the agency and the Merit System toward alleviation of the problem. Only a part of the difficulty could be related to shortage of qualified individuals seeking such employment as the major reason for losses related to inadequacy of salaries. In an effort to overcome the difficulties, two steps were instituted, the first involving regional and national advertising of vacancies and the second, recommendation for

salary adjustment of the entire sanitary engineering series. The program of graduate training for staff members continued.

The annual engineering staff conference was held in January and was attended by all state level professional staff and CHD engineer personnel. This conference as in previous years provided the best atmosphere for exchange of ideas and formulation of program activities and served to further necessary coordination of all personnel for uniform progressive action.

STREAM SANITATION

The program of stream sanitation was continued at an increasing level of operation through special and routine surveys of the waterways. Data continued to be accumulated from established locations on all surface waters toward the end that in the future when staff and time are available, a summary of chemical and biological information may be published. The frustration of "fire-fighting" continued to plague activities in this endeavor. The most outstanding example of such frustration was found in the situation of Bayou Chico where after many years of effort improved water quality was developed through necessary industrial waste treatment installations. Almost immediately after the improvement was effected, one industry which used the waters for other than receiving waste products complained that the clean waters were detrimental to its operations. This situation where stream pollution has been alleviated only to cause hardship to an industry is probably without parallel in the history of water pollution abatement.

A survey of pollution of the waters of the Florida Keys in Monroe County was commenced about midyear and was continuing at the close of the year. This survey was undertaken at the direction of the Board following a hearing held in May by the Board at the request of citizens of Monroe County. The citizens alleged that the CHD requirements with respect to domestic waste disposal were unnecessary and caused hardship to the home builders in Monroe County. The purpose of the survey is to determine whether the waters of the Keys are being polluted due to inadequate and improper waste disposal methods and to determine where and to what extent corrective measures are essential. This survey has been a joint operation involving the Bureau of Laboratories, Division of Sanitation, Monroe CHD and this bureau. While a progress report was given to the Board in October, a final report will not be made until the spring of 1963 to allow consideration of conditions during the heavy winter tourist season.

The three staff biologists attended and participated in the Third Seminar on Biological Problems in Water Pollution held at the Taft Sanitary Engineering Center in Cincinnati. The information they brought back will further the total effort in the stream sanitation program.

Pensacola Regional Staff

The Pensacola regional staff maintained the program of monitoring surface waters in its assigned area from the Apalachicola River westward to the Florida-Alabama state line.

Routine sampling of designated control stations was carried out on a quarterly basis. Of major concern during the first part of the year was the completion of a background survey of the Apalachicola River and Bay. A resurvey of St. Andrews Bay, including evaluation of sewage treatment plants serving Panama City, was also made. Surveys for evaluation of the sewage treatment plant facilities of Crestview and Marianna were likewise conducted. The purpose of such surveys is to determine the efficiency of the treatment works and thereby to establish the need for either improved operation or expansion of facilities. A number of small treatment plants serving laundries, schools and motels were also studied in a continuing program for improvement of such facilities.

Considerable time was devoted to studies of the Escambia River which is an interstate stream crossing from Alabama into Florida. A National Water Quality Network station established by the USPHS and located at Century was maintained and routinely sampled. Data collected at this station is submitted to the USPHS and is published on a routine basis by that agency along with data from all other similar stations located throughout the nation.

A conference called by the Secretary of the Federal Department of Health, Education and Welfare at the request of the State of Florida was held at Pensacola for the purpose of determining whether interstate pollution was entering Florida from Alabama in the Escambia River. Data collected by the Pensacola staff and other information presented at the hearing resulted in a conclusion that while some degree of pollution existed in the river system, no interstate pollution was occurring at that time but that continued surveillance must be maintained.

The staff devoted considerable time to sampling and analyses in the waters of Bayou Chico where major industrial waste treatment facilities were installed providing a substantial advancement in the pollution abatement program for the area.

Numerous minor fish kills were investigated both within the assigned area of responsibility and in areas to the east where joint investigation with the Jacksonville staff was made. In such efforts biological, chemical and bacteriological studies were undertaken so that cause and effort might be established.

The Pensacola staff provided on-the-spot assistance in Milton and Crestview when those areas suffered the effects of two tornadoes which ravaged the area. Routine and special assistance was provided to CHDs

and to water and waste treatment plants when required throughout the year.

Jacksonville Regional Staff

The program of monitoring all established sampling stations within the assigned area of responsibility was maintained insofar as possible on a quarterly sampling basis. The routine program was necessarily bypassed at times to carry out special surveys both within and without the assigned area of responsibility. Utilizing the mobile trailer laboratory, a limited chemical survey was undertaken in Biscayne Bay in the area of Dade County adjacent to a proposed industrial development. The major purpose of this survey was to establish background information which would serve both to provide knowledge of present conditions and establish a base line against which future activities might be measured.

Alleged interstate pollution in waters crossing the border of Georgia and Florida in the Gadsden and Leon County area involved a continuing survey of such waters for the purpose of determining the cause of reported fish kills. A survey was also undertaken to determine whether alleged pollution of private wells was related to industrial waste discharged to a nearby river. While certain preliminary conclusions may be drawn in these surveys no true evaluation can be attempted until data has been collected in each instance over a long period of time and for this purpose studies are to be continued.

The Jacksonville staff assisted in the training of personnel of sewage treatment plants in the area in a continuing program. Numerous small studies were made with respect to waste treatment facilities for industrial and commercial installations. Eventually it is expected that such data together with information gathered from other areas of the state will provide the basis for improved operation and control of such facilities.

Biological investigations were made both in connection with chemical and bacteriological surveys and in connection with special studies devoted to enhancing knowledge of the lakes and streams in the state. Of special interest in this respect is a continuing study of the biological factors of lakes in an urban environment with the objective of establishing suitable control measures which would prevent such bodies of water from becoming aesthetically undesirable.

Winter Haven Staff

The stream sanitation activities of the Winter Haven staff involved both routine sampling of assigned stream basins and surveys of waters involved in either domestic or industrial waste pollution difficulties.

Dam breaks in phosphate mining areas which in previous years had been a major source of difficulty had a reasonably limited effect on the Peace and Alafia Rivers. One such major break was so well controlled by the industry that investigation revealed very little pollution

entered the Alafia River. While there were two major fish kills on the Alafia River investigated, it was determined that neither of the kills had any apparent direct relationship to industrial pollution.

Numerous fish kills occurring in the area were investigated but in only two situations was it possible to establish the direct cause and these were related to industrial waste discharge. Appropriate remedial measures were recommended to prevent future similar occurrences.

Major attention was directed to lakes and streams which received the waste from industrial establishments (principally citrus processing plants) and from sanitary sewerage systems. Such surveys involved chemical, biological and physical studies and, in some instances, the collection of data and evaluation of information was placed on a continuing basis.

A continuing cooperative program was carried out between the Winter Haven staff and the Peace River Valley Water Conservation and Drainage District. In order to provide more complete data on the condition of the Peace River, a recording pH meter was purchased by the Conservation and Drainage District and installed by the Winter Haven staff with the hope that variations in water quality may be more clearly defined.

The staff provided instructional assistance to personnel of sewage treatment plants to aid in laboratory control of such facilities. Additional advice and assistance was provided to personnel of the Pinellas CHD in setting up operation of that department's laboratory.

At midyear the new regional environmental building was completed and occupied. This new building provided much needed and more efficient laboratory and office facility permitting expansion of programs underway. With the added space and with the addition of equipment for which room was not available in the old quarters, expanded services may be given to the area served by this staff.

The functional program carried out at Winter Haven involving both air and water pollution control activities was, at times, required by circumstances to devote its full energies to the air pollution work to the detriment of the monitoring and surveillance of the streams.

TABLE 39
ENGINEERING LABORATORIES ANALYSES — 1962
BASIC WATER QUALITY DATA

LABORATORY	D.O.	B.O.D.	pH	Solids	Fluorides	C.O.D.	Chlorides	NO ₂ -NO ₃ -NH ₄	Phosphates	Biological	Miscellaneous*
Jacksonville	147	110	227	208	54	55	99	95	—	19,750	987
Winter Haven	1314	700	901	104	553	—	—	985	82	13,600	2243
Orlando	421	53	92	7	—	—	—	64	—	—	76
Pensacola	921	720	1043	718	7	321	511	219	39	16,750	1124
Mobile Trailer Lab.	190	182	280	256	—	113	234	—	—	—	1314
TOTALS	2993	1765	2543	1293	614	489	844	1363	121	50,100	5744

*Miscellaneous includes phenols, cyanides, surfactants and other specialized analyses.

DIVISION OF WATER SUPPLY

JOHN B. MILLER, B.S., M.P.H.
Director

The unstable situation concerning professional personnel of the bureau including the staff of this division has continued to be felt during the year. One engineer resigned in August and another in November to accept positions at greater salaries in consulting firms; and these vacancies in the already small division staff had not been filled at year's end. The field surveillance of the large and continually growing number of public water works, as well as some other phases of the program, continues to be neglected in large measure because of the lack of sufficient personnel and inability to retain engineers for reasonable tenures.

For the purpose of updating and correlating previous directives and memoranda issued with respect to bacteriological control of public water supplies and swimming pools, the division developed and distributed a manual on sampling, reports and procedures pertinent to bacteriological examination of water. This was accomplished in close collaboration with the Bureau of Laboratories; and aside from being useful in county health department (CHD) activity, the manual is proving to be an effective guide for water works personnel of municipalities and other water utility owners and operators.

Pursuant to requirements of the Administrative Procedures Act of 1961, the regulations directly affecting the division's program were rewritten, these being pertinent to public water supply facilities, including wells, and public pools and bathing places as covered in the Sanitary Code. The revisions to the Sanitary Code particularly noteworthy as to

current as well as future program activity having to do with aspects of water quality measurement, reflect generally revised U. S. Public Service (USPHS) Drinking Water Standards, 1962.

During the year a meager start was made with regard to developing background on concentrations of pesticide, insecticide and herbicide fractions in some of the shallow well and surface water supplies in the state. This is undertaken through the cooperation of the Regional Office, USPHS (Pesticide Pollution Studies, Water Supply and Pollution Control). The Carbon Chloroform Extract (CCE) procedure is utilized which involves gross material or composite soluble in chloroform, adsorbable on carbon and chloroform extractable from carbon, which in turn may contain both synthetic and naturally occurring organic materials. Apparently, the toxicology of relatively minute concentrations of these materials is at present largely unknown. The results obtained on the gross (CCE) material are considered in the light of aforementioned newly revised Drinking Water Standards. Preliminary results on the few waters investigated so far indicate the need to proceed with this part of the program as rapidly as possible.

With advent of the Cuban crisis in latter part of the year, efforts relating to disaster emergency preparedness of water utilities were stepped up. This included more nearly updating information on names and addresses of water utilities and their local personnel in charge, names and addresses of equipment, material and chemical suppliers. In collaboration with Bureau of Laboratories, there was instigated an inventory of laboratory facilities and technicians which might be available in emergency, this division contacting water works and commercial laboratories generally engaged in water analytical work.

Almost 800 public water supply and public swimming pool projects were cleared during the year through approval of their engineering plans, specifications and related papers. This represents an increase in number of projects of about 8.5 per cent over the previous year; and includes the (minimum 20 per cent sample) pool projects reviewed for consistency which were given local approval per arrangement with those counties having engineers in health departments.

As touched upon in the foregoing, a rather glaring discrepancy in the program continued during the year in that sanitary supervision of public water works was given only limited attention because of need of more professionals for the necessary field work. Part of this picture involves the need of updating the 1956 inventory of the increased number of public water facilities to accurately assess the overall volume, as well as a necessary definitely established operation surveillance routine down through the year.

Water recreation in Florida continued to be emphasized in 1962 in the state's tourism economy, and a highly important facet is the public swimming pool. A large fraction of these facilities continued to be

provided as key attractions in commercial enterprise at apartment buildings, motels, clubs, hotels and some trailer developments and other realty subdivisions. The problem lies in reconciling engineering plans for the facilities to obtain satisfactory standard construction and equipment installation and, thereafter, the increasingly amassed volume of operation supervision. On operation, the division jointly with CHDs and Division of Sanitation held intense training and instruction courses in the southern (Polk County) and northwestern (Leon County) parts of the state, these being specifically for sanitarians.

CONSTRUCTION OF PUBLIC WATER WORKS AND SYSTEMS

Data entered in Table 41 show a continued high total volume on basis of estimated construction per consulting engineers' estimates of construction costs per the engineering plans and specifications for the proposed water facilities approved in the division during the year. A larger number (about five per cent more) of the projects were approved than in the previous year, reflecting many extensions of systems as well as a number of plant expansions, comprising new and extended existing facilities. Upon completion, the new plant and plant expansion work approved in the plans represents an approximate 80.071 million gallons per day (MGD) capability per engineers' estimates, added during the year. Of the estimated dollar volume of proposed construction, about 25 per cent was for the plant work and the remaining 75 per cent for distribution systems. This was only slightly less (28 per cent for plants in 1961) for proposed plant work than in the previous year, reflecting continuation of expanding water utilities service areas through system extension.

Review of the data on proposed construction of public water supply facilities shows continuation of the trend to much of this in areas outside municipal corporate limits. About 54 per cent of the number of these projects during the year were for realty subdivisions, the majority of which are in unincorporated areas. This proportion is only slightly less (58.3 per cent for subdivisions in 1961) than for the previous year.

WATER WELLS AND SURFACE SUPPLY SOURCE

Permits were issued for construction of wells in 40 counties of the state as seen in Table 42. Almost 24 per cent more of such permits were issued than in 1961. As was the case the year before, approximately half of the permits were issued to a relatively small number of counties (17.5 per cent).

Special investigations were undertaken on surface water bodies proposed as sources of public supply. This included field reconnaissance of drainage features, sanitary hazards, and chemical, bacteriological and physical water quality determinations involving an impoundment in

Bay County, proposed impoundment areas in Charlotte and Sarasota Counties, and a stream in Hendry and Lee Counties.

OPERATION OF PUBLIC WATER WORKS

Regrettably, it must be reported that the statewide inventory of public water facilities was not completed during the year owing to lack of necessary personnel to assign to needed updating of this vital information. In the absence of current data, a precise assessment of the total volume of sanitary supervision of water plant operation has not been made. During the year, some field work in this activity was accomplished, to handle conditions which seemed most imperative. The data in Table 43 show geographical locations of this, correlated with the old information (1959) on number of existing public water facilities in the several counties. Of the plants visited, 76 per cent of the number were in counties not having engineers in the CHDs and similarly 81 per cent of the total number of visits were to those counties. In Broward, Dade, Hillsborough, Orange, Palm Beach, Polk and Pinellas Counties, where engineers are in CHDs, the remaining number of visits to the plants were made for special consultation and investigations, including surveillance work of the water fluoridation program in some of them.

Inservice training of water works operation personnel continued to be given as much emphasis and attention as possible during the year, on work with both the one-week annual short course at the University of Florida and the regional short courses held at seven localities over the state. As far as is shown by numerical data, some results on this activity are seen in Table 44. It seems noteworthy to mention a higher percentage (43 per cent) of the applicants for certification in the several classifications passed the respective examinations than the percentage (35 per cent) of such applicants in 1961. Also, a greater number (31 per cent more) became certified as water works operators than in the year before. Perhaps the results reflect in some measure the benefit of prerequisite home study and correspondence course work and activity of lecture groups of the operators' association, sponsored by the bureau.

FLUORIDATION OF PUBLIC SUPPLIES

Some progress was made during the year in adding to the population benefited by fluoridated water supply. Leesburg commenced its fluoridation program in June, there being five installations for the purpose made at the city's water supply facilities. Engineering plans were approved for fluoridation at Palatka, but actual start of the practice was delayed for revision of the plans expected in an overall project of water works expansion proposed by the city. After lengthy legal litigation instigated by a citizen of Fort Pierce, a higher court decision was favorable to starting fluoridation there; and revisions of previously ap-

proved plans and specifications to permit utilization of acid form of the material were approved; but at end of the year, fluoridation had not been started at Fort Pierce owing to the project being further contested in court.

Continuing with their fluoridation programs under technical supervision of the division at year's end were: Belle Glade, Clewiston, Cocoa, Gainesville, Leesburg, Miami (including other towns and cities obtaining water supply from Miami), Naples, Ocala, Orlando and Ormond Beach.

PUBLIC SWIMMING POOLS

The previously mentioned public pool projects approved in the division, when added to those locally approved per arrangement with CHDs having engineers, show the impressive total volume of this activity as seen in Table 42. There were about 12 per cent greater number of plans and specifications approved compared with the previous year, and some 24 per cent greater dollar volume on basis of consulting engineers' estimated construction costs of pools for the period. These each have water filtration, chemical treatment and recirculation systems, although the relatively low average estimated cost (\$15,100) continues the trend of the last several years.

Operation of pools continued to receive attention of the division during the year through assistance to CHDs with operator training. In addition to previously mentioned work on instructing sanitarians in pool operation supervision, help was given on four (Bay, Dade, Hillsborough and Orange Counties) short schools for approximately 350 pool operators and owners. Reference again to Table 42 shows the continued increasing volume of public pool operation program representative of well over 2500 total pools continued under permit, an 11.6 per cent increase over previous year.

NATURAL BATHING PLACES

Inventorying of all places on streams, lakes, tidal waters and others generally used for swimming and bathing by the public still needs to be done when personnel can be assigned to it. Table 42 shows listing by counties the number of permits for natural bathing places continued valid, this situation unchanged from the previous year.

COMMON CARRIER WATER SUPPLIES

The program for sanitary control of water supplies providing potable and culinary water used by interstate carriers was continued during 1962. This program is conducted under a cooperative agreement with the USPHS on the basis of Interstate Quarantine Regulations and Drinking Water Standards. It relates to establishing and maintaining an adequate bacteriological sampling schedule, surveillance of chemical and physical quality of water, inspection of supply and treatment facilities and review of analysis results, all followed by appropriate action to correct deficiencies and insure safety of the water supply.

Supervision of the sanitary aspects of methods and facilities for placing water aboard aircraft, railway trains and vessels operating in interstate traffic is a function of the Division of Sanitation.

The field work involved was accomplished by health department personnel principally at regional and local levels. Results of field activities were reported to the central office, which utilized the submitted data to coordinate subsequent field operations. These reports also served as the basis, in most instances, for recommendations of the department to the USPHS Regional Office, relative to the approval or disapproval of each individual supply.

A total of 32 water supplies in Florida are currently listed by the USPHS as serving interstate carriers, pertinent details of which are shown in Table 40. Of these supplies, 12 serve airlines, 17 railways and 14 vessels. Each supply had to be inspected to determine compliance with acceptable criteria and the findings of these inspections were forwarded to the USPHS on prescribed report forms. Additional field visits to the supplies were frequently necessary.

During the year, analysis work was increased for detection of trace elements, such as heavy metals and exotic chemicals, should these be present in the various water supplies. One supply was kept on provisional status throughout the year while two others were reduced from approved to provisional but later returned to approved status.

TABLE 40
SANITATION OF WATER SUPPLIES SERVING
COMMON CARRIERS, 1962

County	No. of Supplies	Type Carrier Served			Ownership (1) of Supply		No. of Reports Submitted Recommending Status Shown	
		Air	Rail	Vessel	M	P	Approved	Provisional Approval
Bay	2			X	1	1	2	
Brevard	1			X	1		2	
Broward	2	X		X	2		2	
Collier	1		X		1		2	
Dade	1	X	X	X	1		2	
DeSoto	1		X	X	1		2	
Duval	2	X	X	X	2		4	
Escambia	1	X	X	X	1		1	1
Gulf	1			X	1		2	
Hillsborough	2	X	X	X	1	1	4	
Lee	1		X		1		2	
Leon	1	X	X		1		2	
Monroe	1			X	USN		2	
Nassau	1			X		1	1	
Okaloosa	1	X			USAF		1	
Orange	1	X			1		2	
Palm Beach	2	X	X	X	2		3	
Pasco	1		X			1	2	
Pinellas	2	X	X		2		2	
Polk	1		X		1		1	1
St. Lucie	1			X	1		2	
Sarasota	1		X		1			1
Seminole	1		X		1		2	
Sumter	1		X		1		1	
Volusia	2	X	X		2		4	
TOTALS	32				28	4	50	3

(1) Ownership: M-Municipal P-Private

TABLE 41
SUMMARY OF WATER SUPPLY PROJECTS
APPROVED, 1962

COUNTY	No. of Projects	Capacity Increase MGD	ESTIMATED COSTS		
			Water Supply	Distribution	Total
Alachua	3	0.366	\$ 33,000	\$ 45,500	\$ 78,500
Bay	3	0.172	16,300	42,400	58,700
Bradford	1	—	—	23,352	23,352
Brevard	77	1.872	488,500	1,794,689	2,283,189
Broward	41	0.072	99,000	1,489,599	1,588,599
Calhoun	1	0.144	21,000	90,000	111,000
Charlotte	12	0.043	4,000	537,884	541,884
Clay	6	0.792	28,500	60,400	88,900
Collier	5	2.173	36,200	117,500	153,700
Columbia	4	3.210	150,000	118,000	268,000
Dade	54	9.305	278,900	991,474	1,270,374
Duval	59	10.325	253,300	531,199	784,499
Escambia	9	—	—	176,900	176,900
Gilchrist	1	—	—	5,000	5,000
Hardee	1	—	—	38,000	38,000
Hendry	1	0.029	3,000	1,000	4,000
Hillsborough	26	1.344	45,800	756,332	802,132
Indian River	2	0.072	5,000	29,599	34,599
Lake	9	4.393	185,300	450,600	635,900
Lee	13	1.852	310,000	852,166	1,162,166
Levy	2	0.120	4,000	7,000	11,000
Manatee	19	0.595	67,100	158,681	225,781
Marion	5	0.360	10,800	98,800	109,600
Martin	1	—	—	5,500	5,500
Monroe	7	—	—	356,000	356,000
Nassau	1	0.120	4,000	—	4,000
Okaloosa	2	0.072	10,000	15,000	25,000
Orange	14	11.620	265,300	167,988	433,288
Osceola	1	—	—	200,000	200,000
Palm Beach	78	18.744	1,515,390	2,268,321	3,783,711
Pasco	10	0.986	20,000	147,750	167,750
Pinellas	37	0.0	71,000	569,402	640,402
Polk	4	5.400	335,000	123,850	458,850
Putnam	2	0.110	13,300	—	13,300
St. Johns	1	0.720	40,000	25,000	65,000
St. Lucie	4	0.216	8,000	57,800	65,800
Santa Rosa	3	0.047	8,000	8,500	16,500
Sarasota	33	2.312	397,700	1,302,806	1,700,506
Seminole	7	0.158	50,000	137,740	187,740
Sumter	2	1.090	1,800	3,500	5,300
Taylor	1	—	—	45,000	45,000
Volusia	14	1.116	87,116	121,616	208,732
Walton	2	0.036	3,000	1,800	4,800
Washington	1	0.115	4,000	—	4,000
TOTALS	579	80.071	\$4,873,306	\$13,973,648	\$18,846,954

TABLE 42

PERMITS ISSUED FOR SWIMMING POOLS, NATURAL BATHING PLACES, WATER WELLS: PLANS APPROVED FOR PROPOSED PUBLIC SWIMMING POOLS, BY COUNTIES, 1962

COUNTY	PERMITS ISSUED				Plans approved for Proposed Public Swimming Pools	
	Swim- ming Pools*	Natural Bathing Places*	Water Supply Wells	Swim- ming Pools	Number	Estimated Cost
STATE	2554*	53	309	285	350	\$5,281,257
Alachua	18	2	2	4	1	25,000
Baker	1	—	—	—	—	—
Bay	39	1	3	15	17	128,555
Bradford	5	—	—	1	2	17,230
Brevard	16	—	7	2	14	328,650
Broward	593	2	4	63	76**	578,535
Calhoun	—	—	1	—	—	—
Charlotte	3	—	—	1	—	—
Citrus	3	—	—	—	1	13,300
Clay	6	8	—	3	2	—
Collier	19	—	5	5	2	18,000
Columbia	6	—	5	—	—	—
Dade	690*	2	12	47	74**	1,765,709
DeSoto	—	—	—	—	—	—
Dixie	—	—	—	—	—	—
Duval	74*	—	9	11	11	151,100
Escambia	21	1	4	2	2	26,000
Flagler	2	—	2	1	—	—
Franklin	—	1	1	—	1	—
Gadsden	4	—	—	2	1	15,000
Gilchrist	—	—	—	—	—	—
Glades	—	—	1	—	—	—
Gulf	—	—	—	—	—	—
Hamilton	—	1	—	—	—	—
Hardee	—	—	1	—	—	—
Hendry	2	—	—	—	1	6,500
Hernando	—	—	1	—	1	24,500
Highlands	1	1	—	—	—	—
Hillsborough	52	7	20	20	12**	184,380
Holmes	—	—	—	—	—	—
Indian River	11	—	—	—	1	45,000
Jackson	5	—	4	1	3	29,000
Jefferson	—	—	—	—	—	—
Lafayette	—	—	—	—	—	—
Lake	19	1	8	3	3	25,980
Lee	28	—	2	3	3	43,500
Leon	22	3	12	—	1	—
Levy	5	—	2	—	—	—
Liberty	—	2	1	—	—	—
Madison	2	—	—	—	—	—
Manatee	13	2	15	1	2	52,000
Marion	42*	3	27	5	4	32,400
Martin	6	—	—	—	1	5,000
Monroe	43	—	—	6	—	—
Nassau	15	—	—	3	2	10,000
Okaloosa	15	—	7	6	5	33,450
Okeechobee	1	—	—	—	—	—
Orange	46	1	15	9	11	226,600
Osceola	2	—	1	1	—	—
Palm Beach	201	1	19	20	28**	472,700
Pasco	3	—	7	2	1	7,500
Pinellas	202	3	8	23	25	493,700
Polk	56	3	11	3	3**	33,500
Putnam	9	—	7	3	2	15,500
St. Johns	34	—	—	5	7	65,600
St. Lucie	16	—	3	2	4	23,000
Santa Rosa	2	—	3	1	2	14,500
Sarasota	62	2	44	4	9	128,000
Seminole	8	4	6	2	1	11,000
Sumter	1	—	10	1	3	26,868
Suwannee	3	—	—	1	—	—
Taylor	11	—	—	1	—	—
Union	—	—	—	—	—	—
Volusia	111	—	17	2	11	204,000
Wakulla	1	1	—	—	—	—
Walton	2	—	1	—	—	—
Washington	2	1	1	—	—	—

*Accumulative or continuous (19 pools razed and permits re-used)
**County Approvals

TABLE 43

SUMMARY OF WATER PLANT OPERATION VISITS,* 1962

COUNTY	No. of Plants Visited	No. of Visits	Existing No. Plants (as of 1959)
STATE	156	239	779
Alachua	1	2	10
Baker			2
Bay	5	10	13
Bradford			2
Brevard	6	11	12
Broward**	13	13	34
Calhoun			1
Charlotte	6	17	3
Citrus	3	3	3
Clay			8
Collier	1	1	6
Columbia			1
Dade**	2	2	48
DeSoto	2	6	3
Dixie	1	2	2
Duval	3	4	89
Escambia	2	2	15
Flagler			2
Franklin	3	7	6
Gadsden	1	1	5
Gilchrist			1
Glades	1	2	2
Gulf	2	6	4
Hamilton			3
Hardee	4	5	4
Hendry	2	6	2
Hernando	3	3	3
Highlands	5	11	9
Hillsborough**	3	4	23
Holmes	1	1	1
Indian River			7
Jackson	1	1	12
Jefferson			3
Lafayette			1
Lake	1	2	13
Lee	9	17	7
Leon			32
Levy			5
Liberty			1
Madison	2	4	4
Manatee	7	8	28
Marion	1	1	12
Martin	3	6	5
Monroe			2
Nassau			4
Okaloosa	1	1	11
Okeechobee	2	3	2
Orange**	7	7	94
Osceola			3
Palm Beach**	9	14	35
Pasco	23	23	15
Pinellas**	3	3	13
Polk**	1	1	34
Putnam	2	3	5
St. Johns			4
St. Lucie	2	7	2
Santa Rosa			6
Sarasota	4	5	24
Seminole	1	1	35
Sumter	1	2	4
Suwannee	1	2	2
Taylor	1	1	2
Union			2
Volusia	3	7	20
Wakulla			4
Walton			5
Washington	1	1	4

*By Central Office personnel.

**County health departments having engineering personnel.

TABLE 44

*WATER AND SEWAGE WORKS OPERATORS
SHORT SCHOOLS — 1962

SHORT SCHOOL	Applicants		Voluntary Certification Examination			
	Water	Sewage	No. Taking Exam.		No. Passing Exam.	
			Water	Sewage	Water	Sewage
Annual (Univ. of Fla.)						
(1) Class "A"	9	15	8	15	6	6
(2) Class "B"	9	14	9	14	8	6
Regional Class "C"						
Region 1. N.W. Fla.	7	14	5	14	0	5
Region 2. N.E. Fla.	8	17	7	17	1	7
Region 3. Cent. Fla.	26	29	25	29	10	16
Region 4. S.W. Fla.	25	36	19	36	6	12
Region 5. Dade Co.	9	15	8	15	3	7
Region 6. S.E. Fla.						
except Dade & Broward Co.'s	12		12		5	3
Region 7. Broward	28	12	25	12	8	7
Proctored Class "C"	22	30	20	30	12	16
Total Class "C"	137	153	121	153	45	73
Total Classes "A", "B", "C"	155	182	138	182	59	85

*This is a program of inservice training and home study under the aegis of the State Board of Health carried out jointly with the Extension Division of the University of Florida, the Florida Water & Sewage Works Operators Association; Florida Section, American Water Works Association; and Florida Pollution Control Association.

DIVISION OF WASTE WATER

RALPH H. BAKER, JR., M.S.S.E.
Director

This division's responsibilities and activities in 1962 continued to be centered around plan review for domestic waste facilities.

The present staff of the division consists of two engineers, two stenographers, one secretary and a director. Three engineering positions remained unfilled.

The formation of a new Division of Industrial Waste (June 1962) provided a means to consolidate the objectives of the division for a more comprehensive domestic waste program. (Three engineers and one stenographer were transferred to this new division.)

MUNICIPAL WASTES

A total of 772 projects was processed and approved as compared to 725 projects in 1961.

The total construction dollar volume of all projects reflected a \$12,000,000 increase over the previous year, with the increase entirely due to additional collection system extensions. The amounts for plants and lift stations remained at approximately \$10,000,000 for each item (Refer to Table 45).

The following nine projects each exceeded one million dollars: Pompano Beach, Tampa, Gainesville, Boca Ciega Sanitary District, Rockledge, Melbourne, New Smyrna Beach, Hollywood and Boynton Beach.

A total of 41 preliminary engineering reports covering proposed sewerage projects were reviewed and commented on during the year. The workload imposed by these preliminary reports is quite significant when the amount of time spent in meetings and consultations with the individual consulting engineers, in addition to the actual review, is taken into consideration. (Over 500 visitors came into the central office to confer with engineers in this division.)

The approval of 187 additional sewage treatment plants this year now brings the total to 950. Virtually no program exists for the inspection and control of the operation of these facilities. Public awareness with regard to pollution is becoming more evident and numerous complaints have been received pertaining to plant odors and improperly treated sewage plant effluents. Three hundred sixty-four plants out of a total of 950 are routinely submitting monthly operating reports. Approximately 3480 monthly sewage treatment plant reports were received by this division this past year for review, comment and acknowledgment. The breakdown of the 950 sewage treatment plants by type and capacity is shown in Figure 3.

At the present time, visitations to the plants are made almost entirely for emergency situations based on complaints received. Field investigations have been conducted on a cooperative basis with the regional and county sanitary engineers. The following counties were visited during the year by staff engineers of the division: Dade, Broward, Sarasota, Lee, Escambia, Hillsborough, Brevard, Orange, Palm Beach, Monroe, Santa Rosa, Okaloosa, Franklin, Bay, Jefferson, Madison and Leon.

Again a request was received from the Committee on Sewage and Waste Disposal of the Conference of State Sanitary Engineers for a list of the current municipal waste treatment needs in the state. A review of the information secured emphasized the amount of work yet to be done in the state to provide adequate and proper waste treatment facilities. This survey showed that sewage treatment works to serve 1,500,000 persons in unincorporated urban areas of more than 1000 people and incorporated cities were required. As expected, the need was particularly obvious in the most densely populated counties, including Dade, Broward, Duval, Escambia, Orange, Hillsborough and Pinellas. It is also interesting to note that in terms of numbers of facilities the greatest need exists in the small communities of less than 1000 people. There are only six municipalities of over 25,000 persons needing facilities to serve present built-up areas. It should be noted that Table 47, when compared with the 1960 figures, reflects a reduction in these overall needs of approximately 500,000 persons. Florida, as reflected in the 1960 census, is 73.9 per cent urbanized versus 26.1 per cent rural. The rural population still contains 1,290,177 persons who continue to be served by temporary means of sewage disposal, such as septic tanks. This picture is gradually changing as the percentage of the population changes from rural to urban and the people in the densely populated fringe areas surrounding Florida's larger cities are annexed. In the last 10 years, 480,006 persons have been annexed into the incorporated areas. This population has a higher probability of being served by sewers as the incorporated municipalities extend their sewer systems.

In preparing a paper to determine the amount of dilution water which would be required for domestic, as well as industrial, waste based on a hypothetical problem that was presented by the State Board of Conservation, Division of Water Resources and Conservation, considerable material was obtained with reference to the quantity of biochemical oxygen demand being discharged into the various drainage basins within Florida. This study pointed up that there are certain areas within the state where the estimated requirements for all water uses, which includes use for municipal, domestic, agricultural and industrial purposes and sufficient flow to provide for fish and wildlife needs as well as the disposal of treated municipal and industrial waste, exceeds the present average available supply of water and can be considered critical. This study further pointed up the need for the continuance of this division's program requiring disposal of domestic waste

into salt-bearing waters wherever possible in order that the state's fresh water resources will not be overtaxed or presented with a threat of contamination by residual pollution from sewage treatment plants.

The financial aid provided through Public Law 660 was a continuing impetus to the construction of sewage treatment facilities for municipalities.

This fiscal year the state's allocation was based on a Federal appropriation of \$80 million which is an increase over all previous years and provides greater assistance in water pollution control.

FISCAL YEAR 1962-1963

Federal allotment for fiscal year 1962-1963	\$ 2,027,385.00
Funds released by cities from unused contingency funds	15,024.00
Unencumbered funds from allotments for previous fiscal years	36,131.00
Total amount available to applicants qualifying for a grant for the current fiscal year	2,078,540.00
Number of applications received	32
(Of these 17 were new applications and 15 were letters from unsuccessful applications of previous fiscal years requesting reconsideration of original applications or new projects.)	
Estimated costs of overall projects	30,120,306.00
Federal grants requested	4,448,880.00
Per cent of costs for which grants were requested	14.8

Assistance provided from this source was made by the USPHS to Cocoa Beach, DeLand, Dunnellon, Eau Gallie, Gainesville, Hallandale, Maitland, Melbourne, Rockledge, St. Augustine, St. Cloud, Safety Harbor and Sanford. Belleview, Inverness and Ormond Beach were reinstated and construction has begun. Favorable consideration is based on readiness to proceed with construction and other specified priority factors.

EDUCATION

Members of the staff cooperated with the Division of Water Supply and others in program scheduling, provision of instruction and examination preparation and administration for seven regional short courses and one annual short school for water and sewage plant operators (See Table 44 under Division of Water Supply elsewhere in this Report).

TABLE 45

SUMMARY OF PUBLIC SEWERAGE PROJECTS APPROVED, 1962

COUNTY	No. of Projects	Design Population	ESTIMATED COSTS			
			Sewers	Lift Station	Plant	Total
Alachua	6	64,830	2,812,800	938,000	219,000	3,969,800
Baker	1	1,000	7,500	6,000	12,500	26,000
Bay	3	1,614	61,783		26,800	88,583
Bradford	1	500	87,343	1,650		88,993
Brevard	79	64,482	4,193,758	739,190	2,065,000	6,997,948
Broward	72	84,669	7,231,807	2,778,567	769,600	10,779,974
Charlotte	9	2,833	290,930	24,000	145,302	460,232
Citrus	2	3,200	128,000	29,000	105,000	262,000
Clay	5	2,363	92,200	9,100	27,000	128,300
Collier	7	509	6,500	4,500	35,500	46,500
Columbia	2	4,343	401,840	41,000	75,200	518,040
Dade	67	42,880	1,780,571	301,470	383,640	2,465,681
Duval	103	51,343	1,074,068	304,122	833,314	2,211,504
Escambia	21	12,712	541,076	108,000	257,850	906,926
Glades	1	50	3,000	2,200	7,000	12,200
Gulf	1					
Hendry	1	100		2,300		2,300
Hernando	2	480	10,710	6,000	7,500	24,210
Hillsborough	36	34,468	4,788,025	575,850	393,280	5,757,155
Indian River	5	2,442	305,933	46,500	6,000	358,433
Lake	8	11,107	737,475	155,115	246,300	1,138,890
Lee	19	6,553	311,136	66,760	98,700	476,596
Manatee	27	8,480	190,100	63,220	129,260	382,580
Marion	6	2,916	163,600	23,000	131,500	318,100
Martin	4	910	54,300	10,000	6,000	70,300
Monroe	5	1,053	85,000	8,713	59,700	153,413
Okaloosa	11	16,368	449,450	54,300	181,500	685,250
Orange	50	20,853	854,964	306,016	289,800	1,450,780
Osceola	2	10,000	305,000	10,000	135,000	450,000
Palm Beach	51	50,347	3,966,689	740,035	458,300	5,165,024
Pasco	4	1,520	42,190	16,280	78,500	136,970
Pinellas	86	94,108	6,507,206	545,350	672,710	7,725,266
Polk	12	6,073	254,525	268,698	237,000	760,223
St. Johns	3	1,009	60,300	29,000	50,000	139,300
St. Lucie	10	2,501	192,000	24,500		216,500
Santa Rosa	5	1,101	96,180	12,000	16,000	124,180
Sarasota	23	6,414	446,998	113,000	67,300	627,298
Seminole	10	58,685	59,094	18,800	886,800	964,694
Suwannee	1	150	11,000			11,000
Volusia	11	26,686	1,495,756	802,900	950,025	3,248,681
TOTALS	772		40,100,807	9,185,136	10,063,881	59,349,824

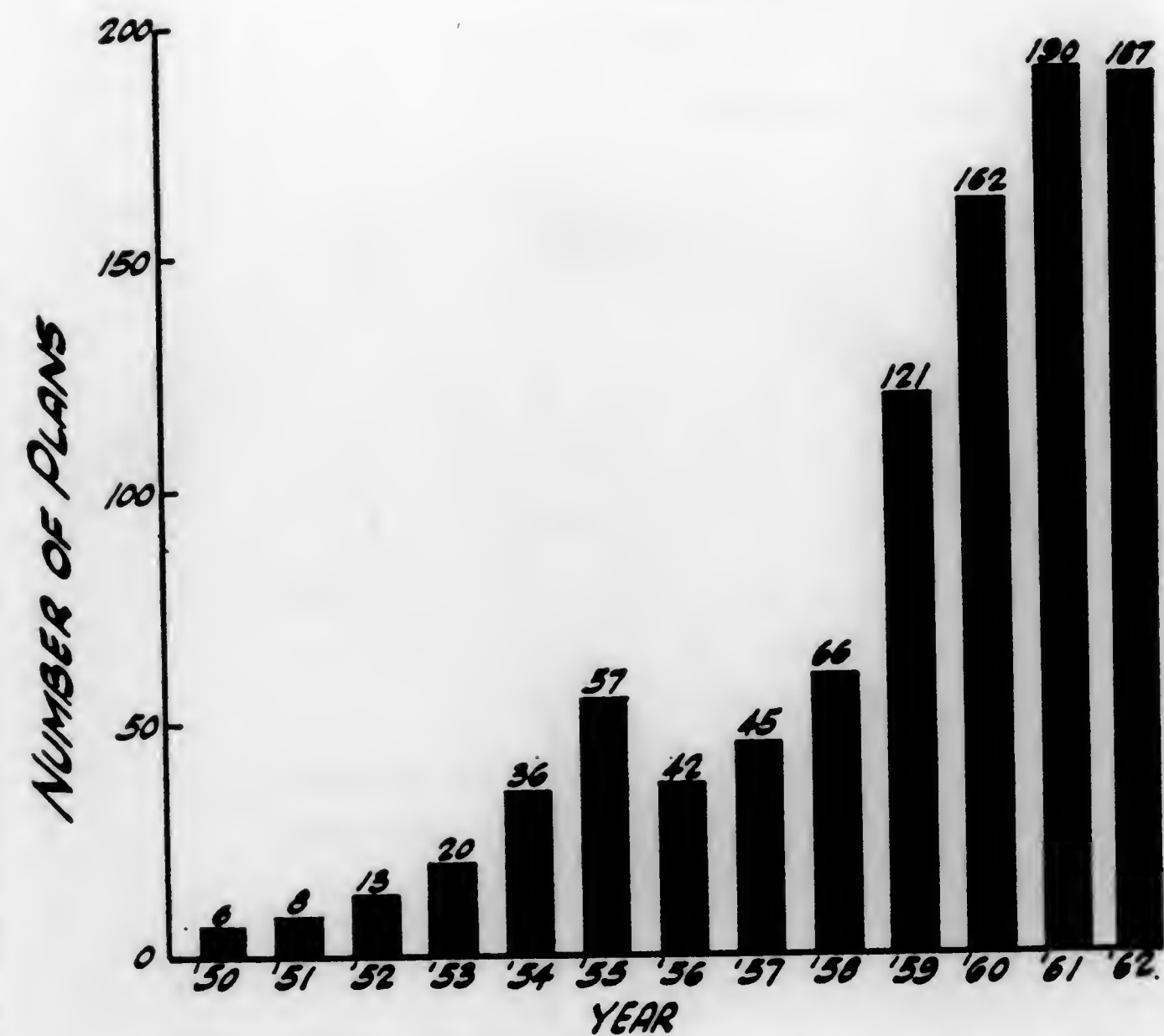
TABLE 46
WASTE WATER PROJECTS PROCESSED LOCALLY, 1962

AREA	NUMBER	ESTIMATED COST
REGIONS		
West	14	\$ 49,000
Northwest	7	12,800
Northeast	142	252,075
Central	21	42,000
Southwest	-0-	-0-
Southeast	6	12,000
COUNTIES		
Broward	5	10,000
Dade	24	175,808
Hillsborough	12	37,000
Orange	3	20,000
Palm Beach	*	*
Pinellas	100	n/k
Polk	20	54,500

*Not reported

Figure 2

SEWAGE TREATMENT PLANTS
APPROVED



NOTE: THESE FIGURES EXCLUDE
SEPTIC TANK - SAND FILTER
INSTALLATIONS.

Figure 3

SEWAGE TREATMENT PLANT TYPES & CAPACITIES

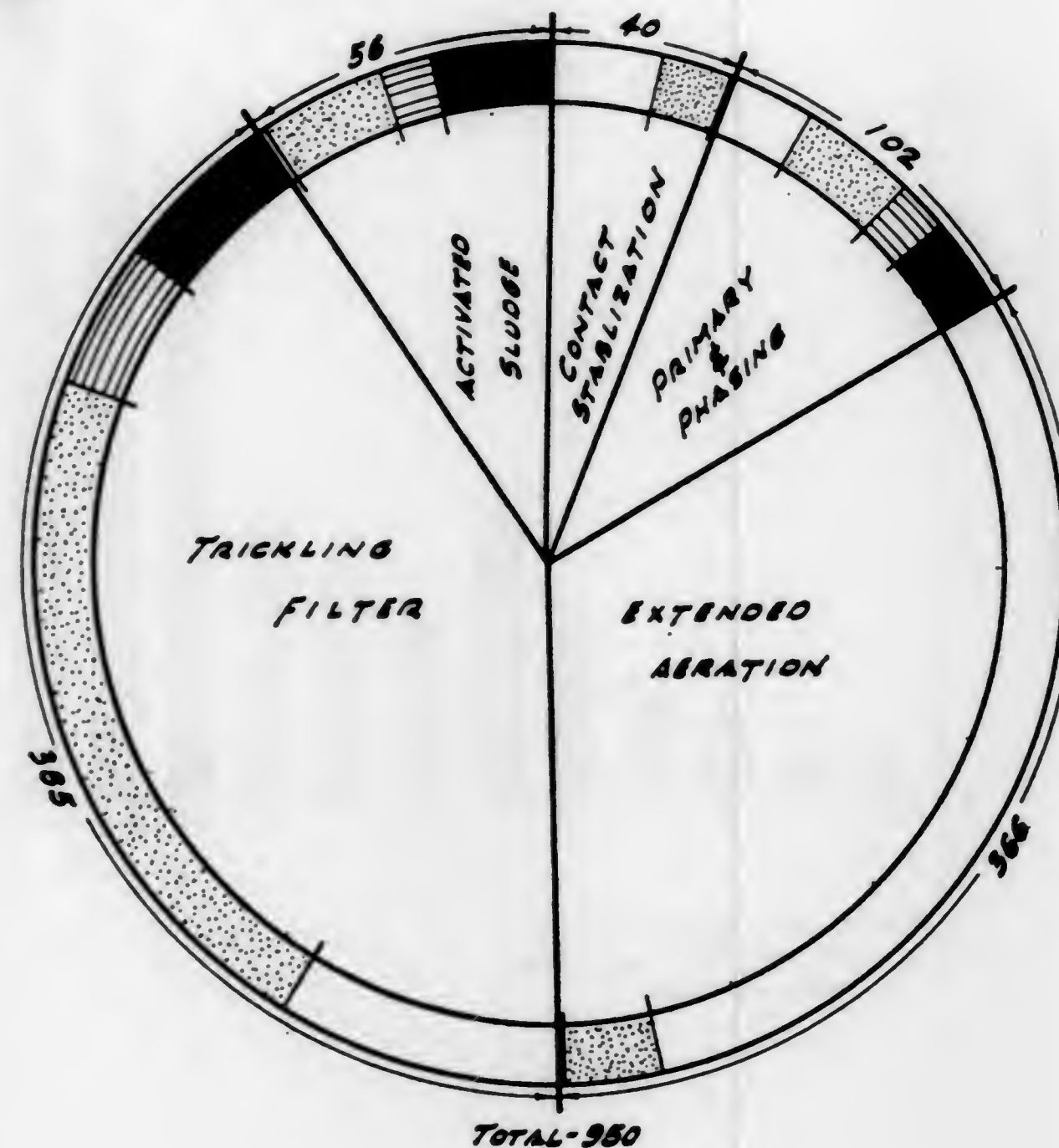
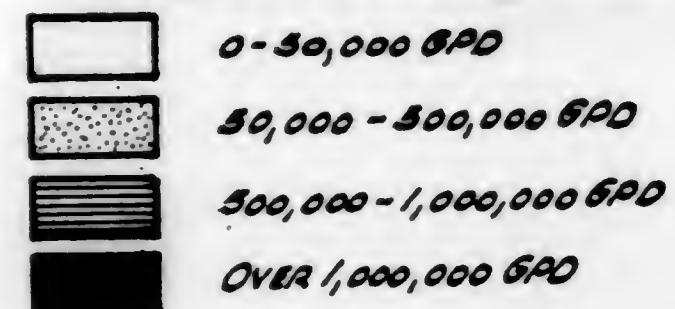
CAPACITY LEGEND

TABLE 47

WASTE TREATMENT NEEDS Incorporated Municipalities by Population Classification

Population Category		Number of Municipalities	Population
500 -----	999 -----	52	36,678
1,000 -----	1,499 -----	30	37,272
1,500 -----	1,999 -----	19	30,143
2,000 -----	2,999 -----	20	50,347
3,000 -----	4,999 -----	14	54,836
5,000 -----	9,999 -----	17	124,392
10,000 -----	24,999 -----	7	95,261
25,000 and over		6	824,810
Total		165	1,253,739

TABLE 48

UNINCORPORATED UNSEWERED URBAN AREAS OF MORE THAN 1000 PEOPLE PER 1960 CENSUS

COUNTY	Population	COUNTY	Population
Bay	2,669	Leon	1,148
Brevard	10,320	Manatee	19,577
Charlotte	4,286	Marion	3,124
Collier	3,224	Orange	3,698
Columbia	2,109	Palm Beach	3,516
Dade	20,084	Pasco	1,523
Escambia	61,550	Polk	21,474
Hendry	1,256	Sarasota	22,505
Hillsborough	5,032	Seminole	1,897
Indian River	3,509	Volusia	9,579
Lake	1,214		
Lee	6,840	Total	210,134

DIVISION OF SPECIAL SERVICES

CHARLES E. COOK, C.E.
Director

This division was approved by the Board and created within the bureau on June 24, 1962. Activities controlling shellfish and crustacea production and enforcement of the bedding inspection law were placed in the division. Service to the county health departments (CHD) in reviewing subdivision analyses with recommendations for adequate public health utilities; liaison with the federal mortgage insuring agencies on community developments; interpretation and technical assistance on plumbing regulations and on regulations for individual sewage disposal also became the responsibilities of the division.

The majority of the activities connected with these programs, with the exception of the bedding law, depend upon and include the assistance and cooperative services of the CHDs. The ultimate capabilities and total control in the quality of shellfish produced and in the development of satisfactory environment in the urbanization growth of the state will only be reached through full cooperation and shared responsibility of the CHDs.

SUBDIVISION PLANNING

The subdivision planning program consists of reviewing analyses data on land developments, housing and community projects and lot sales enterprises as submitted by the CHDs, and making recommendations for adequate public health utilities in order to protect the future environmental health aspects of area population through controls on sanitary facilities for individual home construction. These recommendations and related consultation services are provided to the CHDs, developers, land owners, consulting engineers and provide liaison with the Federal Housing Administration (FHA) and the Veterans Administration (VA).

The program is directed toward restricting any continued wide and indiscriminate use of septic tank systems for individual sewage disposal and private wells for individual home water supply in those developments capable of ultimately becoming areas of high concentrated population. Failures of numerous septic tank systems and pollution of individual wells have created adverse health effects in many such areas. Normally, recommendations are for central or community public systems and have resulted in the construction of such utilities in many housing developments in keeping with the needs of urbanization growth.

The program serves as a guide and planning policy for the CHDs. Many of these have assumed the responsibility for approval or disapproval of individual facilities. Technical advice supporting the need for area utilities is furnished to CHDs. Much has been accomplished in

land planning through these activities toward attainment of a high level of environmental sanitation.

The number of subdivisions referred to the division was less than in previous years. Many new developments now voluntarily include proper planning for adequate utilities due to knowledge of State Board of Health policy requirements. CHDs in general agree with bureau recommendations and promote area utilities. The number of subdivisions reviewed during the year total 29 containing 1427 lots. Area sewerage or extensions to existing sanitary utilities were recommended for 943 lots with septic tank installations considered satisfactory for 484 lots. Only seven lots were approved for use of private wells. Copies of these data and recommendations were submitted to the federal insuring agencies and were influential in determining those agencies' requirements for participating in the subdivision.

Review of final inspection reports for the VA on 420 property cases was made. Practically all cases involving both individual water and individual sewage disposal facilities were located in rural areas on relatively large tracts of land. Review of 65 cases were made for the FHA. In all cases processed, the specifications of the septic tank systems were required to be in compliance with minimum standards of the State Sanitary Code. All individual water supply systems involved were required to comply with minimum bacteriological and chemical standards for an approved water supply.

BEDDING LAW ADMINISTRATION

The functions and responsibilities of the bedding inspection law are to render adequate administration, inspection and enforcement throughout the state in controlling the manufacture, renovation and sale of items of bedding and processed filling material used therein. These activities increased over the previous year with an increase in revenue from fees and in services rendered.

Enforcement of the statutory requirements covered a total of 5841 establishments as registered during the year. Registrations included 975 manufacturers, both in-state and out-of-state, 439 renovators and 4427 retail establishments within the state. Receipts from fees, as prescribed by the law, totaled \$110,415.00 which is an increase of 12.5 per cent over the previous year. This sum includes \$50,900.00 for registry fees and \$59,515.00 for inspection stamps. Inspection stamps sold, accounted for and mailed consisted of approximately 3.25 million one-cent denomination and approximately 1.35 million two-cent denomination.

Inspection of establishments increased over the previous year. There were 8191 official inspections of establishments with 41,969 pieces of bedding found in violation to some degree. The majority of the violations involved the lack of placing the required inspection stamp on the label attached to each item. Placed off sale were 1535 pieces of

bedding, of which all were properly corrected and released except for 692 items that were required to be returned to the manufacturers due to major violations.

Laboratory services for testing and analyzing filling materials were available throughout the year. There were 257 samples analyzed, involving a total of 1186 physical and chemical tests.

Personnel assigned to the bedding program remained constant. The division director devoted part-time to the administration, assisted by a supervisor of inspectors, secretary, clerk and chemist. Five regional inspectors constitute the field or statewide complement.

Rules and regulations based on the law were prepared and adopted by the Board on July 1, 1962. Distribution was delayed beyond the end of the year due to printing schedules.

Principles applied to enforcement continued on a high level of educational efforts and promotion of industry benefits toward obtaining insofar as possible voluntary compliance by the industry. Inspection activities were directed more toward known sources of previous violations and toward those items more frequently found in violation in order to enhance control accomplishment.

SHELLFISH AND CRUSTACEA CONTROL

Safe shellfish production requires a different approach to and greater emphasis on sanitary controls than used for other food products. The relationship between sewage polluted shellfish and disease is the basis for the assumption of control responsibilities. To comply adequately with these responsibilities requires concerted activities, interest and cooperation by the CHDs in those counties wherein the shellfish industry operates. Administrative procedures considered necessary to insure safe and sanitary shellfish products were stated in three memoranda issued to the CHDs and industry during 1962.

Activities during the year included surveys of water areas for gathering shellfish and checking existing approved areas to insure that water quality remained at a satisfactory level. Areas in Duval, Volusia, St. Lucie, Martin, Collier, Lee, Charlotte and Pinellas Counties were surveyed. Charts were prepared and distributed delineating approved areas throughout the state for gathering shellfish. Supervision for a transplanting operation was carried out by state and county personnel. Approximately 12,000 bushels of oysters were removed from unapproved areas of Bay County and moved to Choctawhatchee Bay in Walton County. Samples were collected and analyzed after the operation to determine the bacteriological quality. Periodic inspections for sanitary control of all processing houses were made with many improvements obtained in operational methods and plant facilities. A satisfactory overall percentage rating from the U.S. Public Health Service (USPHS) annual evaluation survey was received, with all plants inspected passing the required minimum grade. Three training sessions

were held to improve the control program and provide uniformity in methods throughout the state.

The production of oysters, the number of houses and control activities are predominantly in the Franklin County area. A total of 155 shellfish houses, including processing and shellstock shippers, were permitted. Fifty-six of these were located in the Apalachicola Bay area. The season experienced a pronounced increase in production, sales and number of new plants constructed and existing plants remodeled or enlarged. Sixteen new oyster shucking houses, one new repacking plant and nine new shellstock houses were constructed totaling 265 shucking stalls. Landing records for the first 11-month period were reported as 500,342 gallons of oyster meats which, compared to this same period in 1961 when production amounted to 310,000 gallons, was an increase of approximately 62 per cent. Use of the marine laboratory in Apalachicola greatly increased from assignment by the Bureau of Laboratories of a full-time bioanalyst to this facility, which greatly improved the control program.

Crabmeat production showed some recovery from last year's setback resulting from enactment of Federal Minimum Wage Act. Thirty-three permits were issued for crabmeat processing plants, an increase of 11 permits over last year.

Table 49 summarizes the pertinent items of the activities in the program. The many and detailed activities of valuable assistance received from various CHDs are not reflected in the table.

TABLE 49
SUMMARY OF ACTIVITIES, SHELLFISH
AND CRUSTACEA PLANTS, 1962

Description	Operating Certificates Issued	State Visitations Made	New Plants Constructed	Plants Remodeled
Oyster shucking and packing	106	372	16	3
Oyster shellstock only	38	54	9	—
Oyster repacking	11	30	1	—
Scallop shucking and packing	18	8	—	—
Clam shucking and packing	11	5	—	—
Crabmeat processing	33	65	—	—
RELATED SHELLFISH AND CRUSTACEA ACTIVITIES				
Oyster growing water samples bacteriologically tested				1690
Oyster meat samples bacteriologically tested				35
Crabmeat samples bacteriologically tested				26
Plant water samples bacteriologically tested				188

TECHNICAL ASSISTANCE

This phase of the division activities includes technical assistance to the CHDs and other official agencies in the application and interpretation of the Plumbing Code and the Regulations of the Sanitary Code for individual sewage disposal facilities.

Sanitary Code Regulations for school sanitation, individual sewage disposal, plumbing and shellfish were revised for Board adoption. A Manual of Practice, consisting of a joint implementation of regulations of the Sanitary Code governing school sanitation, was prepared in assistance with personnel of the State Department of Education. This manual was for the purpose of obtaining uniform interpretation and joint administration of the Sanitary Code. The manual was distributed to all county school superintendents, county health officers, professional architects and engineers.

DIVISION OF INDUSTRIAL WASTE

VINCENT D. PATTON, M.S.S.E.
Director

The division was created in June 1962 and given responsibilities in the field of industrial wastes, air pollution, mechanical refuse disposal, drainage wells and radiological health.

INDUSTRIAL WASTES

The past year reflected a large increase in the number of industrial waste treatment plans approved as compared to 1961. The population equivalent as well as the estimated cost was up considerably. Several treatment facilities to handle material such as plating and oil wastes were approved which do not have a population equivalent (Table 50).

One significant development was the appropriation of money by Dade County to cover installation of a large force main which will permit pretreated waste to be pumped from companies operating at the Miami International Airport to the sewerage system of Miami. Formerly such wastes, consisting of oil, airplane-washing compounds, plating wastes and related materials, were dumped in the Miami River and Tamiami Canal with little or no treatment. This will remove a serious pollutional threat to the Hialeah well fields of the Miami water system. Pretreatment units for several of the largest tenants of the airport have been approved and placed in operation.

One project approved during the year was for a spray irrigation system for two citrus processing plants. Work is well underway to investigate the possibility of utilizing a waste treatment system to handle waste from one of the state's larger citrus processing plants.

Sufficient testing was carried out to evaluate a proposed unit to treat laundry wastes, including the removal of detergents to an accep-

table level. Investigations proved sufficiently satisfactory so that the unit was approved on an experimental basis.

AIR POLLUTION

The air pollution control program covers the state and included operation of the Polk-Hillsborough Air Pollution Control District.

The Florida Air Pollution Control Commission (FAPCC), during 1962, consisted of the following members: J. O. Bond, M.D.; E. T. Casler, D.Sc.; W. R. Fort; E. R. Hendrickson, Ph.D.; A. P. McIntosh; F. L. McNeer; W. D. Miller; R. E. Parks, M.D.; L. H. Wear; and G. F. Westbrook, Ph.D. Dr. J. O. Bond replaced Dr. A. V. Hardy as the representative of the State Health Officer in October 1962. Dr. E. R. Hendrickson served as FAPCC chairman and W. D. Miller served as vice-chairman.

The FAPCC held six meetings during the year. It worked with the State Board of Health (SBH) in preparation of the budget for the 1963-1965 biennium.

STATEWIDE PROGRAM

The statewide program was carried on during the year to render technical assistance to the counties. During the year a considerable amount of time was devoted by central office personnel to provide assistance to Dade County. The proposed construction of a 50,000 barrel per day oil refinery in the southern part of the county near Homestead, precipitated considerable controversy with a decision that no building permit would be issued until a pollution control ordinance was enacted. Much time was spent advising and consulting with the Dade County manager and attorney on possible provisions of this ordinance. As a result, money was appropriated by the county commission to provide for an air and water pollution control team. A report of "Dade County Air Resources" was published by the U. S. Public Health Service. Assistance by SBH personnel was given in preparation of the report.

Indications are that a strong effort will be made during 1963 in Broward County to provide a similar team. Several of the larger county health departments (CHD) have been contacted to promote such teams.

Nine surveys were made during 1962. Personnel from Winter Haven made a survey of a power generating station in Brevard County. During the fall, they began using natural gas as a fuel in place of oil and relieved their air pollution problem. Other surveys covered incinerators in three different counties. Central office personnel assisted Winter Haven personnel with their stack sampling program.

During the year a considerable amount of time was spent on rewriting chapters of the State Sanitary Code in conformance with the Administrative Practices Act.

Work was started on an air emission inventory of Hillsborough County. It is expected this will be completed in early 1963.

Polk-Hillsborough Air Pollution Control Districts

The primary responsibility of the control district continued to concern eight phosphate mining and fertilizer manufacturing companies in Polk County and two similar operations in Hillsborough County.

During 1962 the following air pollution investigation programs were in operation: conference, conciliation and persuasion; Pensacola bahia monitoring; treated filter paper monitoring; ambient air sampling for fluoride and sulfur dioxide; gladiolus sampling; pasture grass sampling; in-plant inspection; and stack sampling. Stack sampling activities were limited to the last half of the year since the team was not fully staffed until the middle of the year.

The purpose of these programs has been to gain data and information to be used in the number one project of "conference, conciliation and persuasion" with the individual companies. The phosphate industry has installed the following air pollution control devices and modifications during the year: 13 wet scrubbers; one bag filter; one electrostatic precipitator; one set of cyclone dust collectors; and nine adjustments including replacements.

These installations and modifications have been made on manufacturing equipment and operations that were in existence prior to 1960. In addition, the following control devices were placed on new installations of plant production and expansions: 10 wet scrubbers; one bag filter; two sets of cyclone dust collectors; and major adjustment.

New phosphate plant constructions during 1962 included three new diammonium phosphate plants, which produce a fertilizer product while emitting very little fluoride, and one completely new triple super-phosphate plant.

In the past three years, seven new sulfuric acid plants have been constructed in Polk County, which brings the total in this area to 19. Ambient air sampling with respect to sulfur dioxide was initiated in anticipation of problems from this sulfuric acid manufacturing expansion.

The activities previously discussed have also caused the phosphate companies to initiate and carry out their own monitoring programs. Such programs have grown at a very rapid rate during the past year, both in number and intensity.

The effectiveness of the program may be partly evaluated by comparison of fluoride emissions. Particulates were emitted at a rate of 20,708 pounds per day in October 1960. This figure was reduced to 10,617 pounds per day by August 1961 and further reduced to 4278 pounds per day by July 1962. Gaseous emissions were 12,807 pounds

per day in October 1960. The value rose to 18,141 pounds per day by August 1961 and decreased to 14,109 pounds per day. Total fluorides emitted for the three dates previously mentioned were 33,515, 28,758 and 18,387 pounds per day respectively.

The apparent increase in gaseous emissions between 1960 and 1961 is probably due to improvements and standardizations of stack sampling methods and the obtaining of better analytical information.

In addition to the emphasis on the phosphate industry, a survey of particulate fallout was conducted in Hillsborough County in cooperation with county personnel. A similar survey was started in Broward County, also in cooperation with county personnel, and should be concluded in 1963.

Involved in all activities was the handling of 4553 samples. Of these, 3103 were analyzed for fluorides alone, while 255 were analyzed for insoluble solids together with fluorides. Insoluble solids plus phosphate analyses were determined on 400 of the total. Also, 645 were analyzed for sulfur dioxide. Various miscellaneous analyses were run on the remainder of the samples. A breakdown of analytical work is shown in Table 51.

Performance and efficiency studies were conducted on three incinerators in cooperation with other personnel in order to gain information for the establishment of design and operational criteria.

There were 13 sets of plans reviewed and either approved or accepted. Of these, one was for a special type of incinerator, two involved electric generating plants and one concerned a new sulfuric acid plant. The remaining nine involved the phosphate industry.

Outside the phosphate mining and manufacturing operation 12 investigations were made on nuisance complaints. Seven of these complaints involved fertilizer mixing plants and asphalt plants. Improvements or solutions to four complaint situations were accomplished, four are still on an active status, one was judged unjustified and the remaining three were referred to the appropriate CHD for future action.

Refuse Disposal

There continues to be some interest evidenced in mechanical refuse disposal. During the year revised plans for a composting plant for North Miami were approved.

A total of 93 incinerator projects were reviewed and approved during the year. Authority was delegated to those CHDs having sanitary engineers to approve incinerators having a rated capacity not exceeding 1000 pounds per hour. Under such delegation of authority, a total of 33 projects were approved by six CHDs. Table 52 shows a breakdown of approvals.

The total value of incinerator projects approved was considerably in excess of that approved in 1961. This was due in large part to the two municipal incinerators approved this year.

During 1962, a countywide refuse disposal study was made in both Broward and Dade Counties. It was concluded that additional county-owned and operated incinerators should be constructed. Both studies were endorsed.

DRAINAGE WELLS

The number of drainage well permits issued continued to decline. In 1962 a total of 156 permits were issued, with most being for either air conditioning or swimming pool drainage.

RADIOLOGICAL HEALTH

Work was continued during 1962, in cooperation with the Division of Radiological and Occupational Health and the Bureau of Laboratories in securing samples for radiological analysis.

A total of 219 water samples were collected by bureau personnel during 1962 and forwarded to the Bureau of Laboratories for analysis. These were gathered to supplement background information of this type previously obtained.

A considerable amount of such data covering air, rainfall, sewage and surface waters in the vicinity of Gainesville was furnished by personnel of the Phelps Sanitary Engineering Laboratory, University of Florida.

As the laboratory capabilities increase, it is planned to shift emphasis to other sources, such as oysters.

TABLE 50
INDUSTRIAL WASTE PROJECTS APPROVED, 1962

County	Number Approved	Population Equivalent	Cost :
Alachua	1	0	\$ 25,000*
Bay	1	80	4,500
Charlotte	1	100	5,000
Collier	1	83	3,000
Dade	12	15,700	322,000
Duval	2	680	20,000
Escambia	1	26,000	300,000
Flagler	1	129	2,000
Hillsborough	6	3,500	24,000
Lee	2	345	11,000
Manatee	4	1,730	46,000
Nassau	1	30	8,000
Orange	2	63,100	105,000
Palm Beach	2	500	20,000*
Pasco	1	106	5,000
Polk	6	322	650,000*
Sarasota	3	349	15,000
Seminole	1	141	5,000
St. Johns	1	75	3,000
Sumter	1	460	10,000
Volusia	1	60	2,800
Total	51	113,500	\$1,586,000

*Estimate

TABLE 51
NUMBER OF AIR POLLUTION SAMPLES ANALYZED,
BY TYPE, 1962

Bahia Grass (usual monitoring stations)	831
Filter papers	898
Gladioli	127
Citrus	224
Ambient air, F ⁻	1173
Ambient air, SO ₂	650
Pasture grasses	141
Source sampling	93
Dust fall samples	
Insoluble solids	360
Insoluble P ₂ O ₅	181
Soluble F ⁻	201
Insoluble F ⁻	52
Miscellaneous (soil, water, rain, dust, bones, special vegetation, etc.)	134

TABLE 52
INCINERATOR PROJECTS APPROVED IN 1962

County	Number Approved	Population Equivalent	Cost
Brevard	5	2,800	\$ 15,500
Broward	2	510	5,000
Charlotte	2	600	8,800
Collier	1	600	3,400
Dade	14	39,800	134,000
Duval	2	1,160	14,600
Escambia	1	1,100	4,900
Hillsborough	5	3,120	20,200
Indian River	2	1,000	9,900
Lee	2	1,200	6,800
Leon	1	360	3,600
Marion	1	270	3,000
Manatee	1	740	3,500
Monroe	2	1,000	7,500
Okeechobee	2	1,200	6,800
Orange	2		653,400
Palm Beach	17	5,700	80,400
Pinellas	20	9,680	115,000
Polk	5	3,590	20,700
Sarasota	4	2,800	15,800
St. Lucie	1	400	6,500
Volusia	1	1,000	18,200
Total	93	78,630	\$1,158,000

BUREAU OF MENTAL HEALTH

WAYNE YEAGER, M.D., Director
 EDWARD L. FLEMMING, Ed.D., M.P.H.
 Assistant Director

The role of the bureau is to carry out the policies, plans and work of the State Board of Health (SBH) in the field of mental health. Specifically it is concerned with the control and prevention of mental illness and the promotion of good mental health through cooperation with communities, state, regional and national programs designed to maintain and strengthen the mental health of Florida people. It works to strengthen and coordinate varied services and programs so there will be a minimum of duplication and a maximum of preventive mental health services. The staff consists of a medical director and consultants in psychiatry, public health administration, mental health and psychiatric nursing, psychiatric social work, psychology and the social sciences.

The Florida Interagency Committee on Mental Health (established August 1, 1961) anticipated the need for joint planning and coordination of mental health programs and began this year to collect data, identify resources, and develop administrative machinery for carrying out a reliable study of Florida's mental illness problems.

In response to the principles enunciated in the report of the Joint Commission on Mental Illness and Mental Health entitled "Action for Mental Health" the Florida Mental Health Association and other organizations requested the Governor to ask the 1961 Legislature to create a survey committee to study mental illness in Florida and to prepare recommendations for a progressive program. The survey committee has employed the services of the American Psychiatric Association to carry out the study. The final report will be made to the Governor and to the Legislature in early 1963.

Florida's mental health problems are intensified by the influx of special population groups including Latins, space age personnel, tourists, retirees, agricultural migrants and others. The SBH feels it has a responsibility to them and all other new citizens who come to the state, and facilities, services and programs must be provided to meet their problems and needs. It is now estimated that approximately 55,000 persons in the state are seriously incapacitated with mental and emotional illness and over 300,000 need the services of a psychiatrist or mental health facility; that one in 10 school children have serious emotional difficulties and need child guidance services. Also, the state mental institutions are discharging patients more rapidly and the need for more follow-up services is increasing. Based on studies over the United States, it is conservatively estimated that mental illness costs the state over \$121,000,000 each year, or approximately \$22 per person.

The lack of professional manpower to meet the mental health needs of the state is becoming more critical as Florida's population

increases. There is very little hope that an adequate supply of trained professionals will be forthcoming within the foreseeable future. To meet this manpower challenge the SBH has engaged in an intensive program to find ways of spreading the professional skills of the psychiatrist, psychologist, psychiatric social worker and psychiatric nurse to as many persons as possible. Ways are being sought to use the traditional public health teams, consisting of health officer, public health nurse, sanitarian, clerk and health educator, to provide broad linkage between mental health professional persons and the citizens of Florida. Emphasis in planning is on community-oriented mental health programs supplemented with close consultative relations with psychiatric, psychological and guidance clinics, social agencies and professional organizations.

As in the past, members of the bureau staff have participated in local, state, regional and national programs involving parent-child relationships, adjustment of the aged, alcoholism, diagnosis and treatment of childhood emotional disorders, research and training in mental health, human relations in industry, the development of adult outpatient psychiatric services for indigents, follow-up studies for patients on trial visits from the state hospital, preadmission and concurrent assistance for state hospital patients and their families, services and programs for the retarded and brain injured, exceptional child programs in the public schools, the origin of delinquent behavior and preventive or control institutes, institutionalization of psychotic children and both formal and inservice training for mental health specialists and lay groups.

OUTPATIENT CHILD GUIDANCE AND COMMUNITY MENTAL HEALTH CLINICS

For the 19 child guidance and community mental health clinics affiliated with SBH, 1962 was again distinguished more by change and modification than by growth and expansion. No new clinics were organized and few clinics reported an increase in the number of professional personnel employed. The adult clinic in Clearwater opened a branch in St. Petersburg, and the Dade County Clinic organized a branch to serve the Juvenile Court. The total number of persons served remained essentially at the 1961 level.

The move toward adequate psychiatric consultation was significantly enhanced with most clinics showing gains in this respect. Only one clinic possessed a full-time psychiatrist at the end of 1960 compared to nine full-time psychiatrist-directors at this year's end. There are over 30 psychiatrists working in SBH programs.

The Council of Mental Health Clinic Directors, officially organized late in 1960, continued activities during the year. The Council made valuable contributions in (1) preparation of a model community mental health services act for Florida, (2) making recommendations concerning Merit System salary ranges and job descriptions for all

mental health professionals, and (3) recognition of their responsibility to offer a broader service than the traditional diagnostic and treatment functions of the historic clinic. Clinic personnel cooperated with this bureau in bringing Gerald Caplan, M.D., D.P.M., Harvard School of Public Health, for a two-day institute in Miami on consultee-centered case consultation.

During the year the clinics continued participation in a joint project entitled "Behavioral Classification of Children's Disorders." Recognizing the inadequacy of the current diagnostic classification scheme for children's emotional and psychiatric disorders the clinics are collaborating in a study, which in a few years could eventually lead to standardized and unequivocal descriptions of the problems of children. These would permit descriptive epidemiological studies not now possible because of ambiguity in definition of illness. The application for a grant from the NIMH to support the project was denied in November 1962.

With each clinic director faced with limited funds, excessive demands for services and staff shortages, considerations of "productivity ratios" loomed important. Each clinic continued to struggle with ways to improve the ratio of the number of persons seen and interviews conducted in relation to the total number of professional man hours available in his program.

COUNTY HEALTH DEPARTMENT PROGRAMS

It is notable that all the county health departments (CHD) are participating in the follow-up program for former state hospital patients. There are many outstanding programs in operation or in the planning stage in all the counties. The following county programs are cited to illustrate how CHDs are working to meet mental health needs in Florida. There are many other excellent programs which have been described in past Annual Reports which are still functioning at a high level of community mental health service.

Alachua County

The mental health program in Alachua CHD has been outstanding because its clinical program is offered through the CHD rather than through a separate clinic. As a division within the CHD there is increased coordination with the public health nurses and other front-line workers in the area of mental health. This program has demonstrated the feasibility of a mental health program operating totally within a public health set-up.

Escambia County

The distinguishing characteristic of a mental health service in this CHD has been the expansion of its program to include adult psychiatric and follow-up services in addition to its child guidance function. The mental health personnel have been active in the development

of a preventive program in the maternal and child services. This consists of work with prenatals and mothers attending well baby clinics in order to develop a greater understanding of mental health principles involved in child rearing.

Hillsborough County

The Mental Health Resources Council, sponsored by the CHD, has done outstanding work in providing interagency communication. The Council receives a summary of information regarding the patient and decides which community agencies and facilities might be used to assist the ex-patient and his family. Normally the patient's condition and his adaptation to home life are reviewed at the end of six months and one year. The Council has recently been reorganized and functions as a part of the CHD.

Leon County

The mental health program in Leon revolves around a division of mental health which consists of a multi-purpose mental health clinic, psychiatric consultation and a training program for psychologists and clinical social workers. The clinic supervises the mental health worker, consults with the public health nurses and assists in the follow-up program. Assistance is given the Department of Sociology of Florida State University in the training of social scientists in mental health.

Palm Beach County

The first effort to develop a comprehensive psychiatric program in a CHD was started in Palm Beach. This mental health program has expanded to encompass more comprehensively the mental health needs in Palm Beach County. It will consist of a broad spectrum of services for child and adult outpatient services, inpatient facilities and a follow-up program.

Pinellas County

Perhaps the most startling break-through in mental health program development took place in Pinellas County. The CHD organized and started a countywide emergency mental health service program providing visitation services and crisis consultation in cases of social breakdown and acute mental episodes at the site of the emergencies—in the patient's home or in the community. Several teams have been set up, each of which is composed of a physician and nurse with experience in psychiatric nursing. This program operates 24 hours per day and promises to be one of the most effective services developed in Florida public health.

Volusia County

The Volusia County clinic has been undergoing a process of reorganization and is developing its program to include comprehensive mental health services. As in Escambia and Palm Beach Counties, the trend is toward all inclusive services to those needing help with their

mental health problems. The division is assisted by an advisory board of directors.

The Follow-up Program for Former State Hospital Patients

CHDs continued to give strong support to patients and families with problems of mental ill health. In 67 counties public health nurses and mental health workers made numerous field and office visits to patients. In 1962, a total of 10,355 patients were admitted to mental health services, and over 4100 of these were patients on furlough or trial visit. A decrease in readmission rates has occurred even though the total number of patients sent out on trial visits increased from 4554 in 1956 to 5800 in 1962. In the fiscal year of 1961-1962 there was only an increase of 148 in the total hospital population. The important factors controlling readmissions are believed to be drug therapy continued by the patient after leaving the hospital plus the follow-up program of the SBH.

The special drug program for indigent follow-up patients was continued in 1962 in spite of a very limited budget. The drugs supplied to CHDs were: chlorpromazine, imipramine, methaminodiazepoxide, perphenazine, promazine, trifluoparazine and thioridazine.

Mental Health Workers Program

Program activities in the mental health worker program remained about the same as in recent years. (For a complete description of this program see the 1960 Annual Report.) Presently, there are 26 workers assigned to CHDs. During 1962 they admitted a total of 3062 patients to services and made 6435 field visits and 14,647 office visits. There is increasing evidence that the professional performance of these health workers is reaching a high level of maturity and their contributions to CHD programs is becoming increasingly important.

PSYCHIATRIC UNITS IN GENERAL HOSPITALS

This bureau has continued cooperation with several state organizations and hospitals in providing for the establishment of psychiatric units in general hospitals. A committee with representatives from the State Board of Health, University of Florida, Florida Hospital Association, The Florida Mental Health Association and other organizations was formed for the purpose of surveying private facilities in Florida for the mentally ill. This revealed that during 1959 over 5665 patients were treated in 14 general hospitals. The total number of beds available was 299. About 4500 of the 5665 patients treated were discharged to their homes and many to full employment. Only 1500 required prolonged treatment or commitment to the state hospitals. During the period July 1, 1958-June 30, 1960 the four state mental hospitals admitted 8798 patients or approximately 4400 per year and the total net separations amounted to about 4100 per year. These data indicate that Florida is making real progress toward providing adequate psychiatric services in the general hospitals. At the end of 1962 the total number of beds for psychiatric patients in general hospitals had

increased to over 500 and plans for the addition of over 100 beds for adults and approximately 50 beds for children had been developed. This bureau continued to encourage communities to work for more psychiatric beds in their local hospitals, and several cities plan to open psychiatric units as soon as staff and funds are available.

During the year the bureau prepared data relating to community-centered mental health needs in the state for the Interim Legislative Committee on Health and Welfare and the office of the Secretary of State. Under the Florida Hospital Service for the Indigent Program it is possible to admit patients with an acute mental illness to the general hospitals which have appropriate facilities and where a psychiatrist will provide the medical care.

EDUCATIONAL ACTIVITIES

The educational activities of the bureau are determined by the need to help public health personnel increase their competence in mental health public health practices and to support and assist community voluntary and official agencies and groups in every appropriate way to initiate and carry on mental health programs conducive to optimum mental health for Florida's citizens. The bureau provides financial assistance, leadership, co-sponsorship and staff participation as indicated and requested.

A workshop for mental health workers was conducted in September 1962. Staff members participated in the continuing inservice study programs for public health nursing personnel in CHDs and in a wide variety of workshops and conferences sponsored by other agencies and groups. These groups included personnel, guidance and rehabilitation counselors, policemen, CHD venereal disease investigators, nursing home operators, members of parent-teacher associations, mental health and child guidance clinic personnel and mental health association members.

EDUCATIONAL ACTIVITIES—PSYCHIATRIC NURSING

The bureau, in joint sponsorship with the Division of Public Health Nursing, offers workshops on Interpersonal Skills in Mental Health and Psychiatric Nursing for public health nursing supervisors and senior public health nurses on a continuing basis.

Interdisciplinary workshops on Human Relations and Leadership Skills are offered through joint sponsorship of the Division of Public Health Nursing and the bureau, in cooperation with, and at the request of CHDs and local voluntary and official health and welfare agencies. Staff members from the bureau and clinics have served as resource persons and faculty.

This bureau served as host and co-sponsor with the U.S. Public Health Services and State Mental Health Authorities for a regional conference of nurse leaders in the state of Region IV, U.S. Department of Health, Education, and Welfare. This conference on Staff Develop-

ment and Improvement of Patient Care was financed by a Technical Assistance Project grant from Community Services Branch of DHEW.

Mental Health and Psychiatric Nursing Staff Development

During the past several years the demand for nursing service in mental health programs and in the care of mentally ill patients has skyrocketed. Many public health and general hospital staff nurses in Florida have been required to provide nursing care to patients although instruction and clinical practice in psychiatric nursing had not been included in their basic nursing school program. With the creation of the Mental Health Training and Research Council program this bureau assumed responsibility for responding to expressed needs of Florida nurses for staff development in this area.

In 1958 a curriculum conference co-sponsored by the Board of Nursing, the Florida Council on Training and Research in Mental Health and the Florida League for Nursing considered the feasibility of providing supplementary instruction in psychiatric nursing for employed registered nurses throughout the state. Three seminars were conducted by a faculty member from Community College and University Nursing Schools during 1959-61, but faculty was not always available for extra teaching in areas where the seminar was being requested. In the fall of 1962 the NIMH awarded a project grant to this bureau to support a full-time psychiatric nurse instructor for this program.

The state is divided into geographic regions and two concurrent 16-week seminars are taught with each class limited to 20 nurses. Registered nurses employed in public health, general and state hospitals, private duty and nursing homes are enrolled. Whenever feasible a community junior college offers credit through the adult education program. Nurses moving to Florida who have not previously had the required basic preparation for licensure eligibility are also enrolled, and admitted to the licensing examination upon completion. The demand for this program currently far exceeds the courses available through the services of one instructor.

RESEARCH ACTIVITIES

Study of the Rehabilitation of Former Mental Patients

This study represents an attempt to determine the extent to which 300 treated mental patients have been rehabilitated during a period of one year following hospitalization. Approximately one-half of the patients reside in a county in which the services of 32 community agencies and organizations have been coordinated to assist in the rehabilitation of former patients; the remainder of the patients live in a similar county which does not have a coordinated program for this purpose. A comparison of the rehabilitation of the patients in the two counties was made as a part of the evaluation of the coordinated program. In general this comparison revealed few differences

between the rehabilitation of patients in the two counties. The findings have been made available to the agencies involved. At present the data are being analyzed to identify factors which facilitate or retard the rehabilitation of former patients.

Study of Factors Which Influence Poliomyelitis Vaccine Acceptance

For several years the social scientist of the bureau staff has participated in studies that have attempted to determine the factors which influence the acceptance of both oral and injected poliomyelitis vaccines. The first study was conducted in Dade County in 1960 and the findings published in monograph form in 1961 under the title of *The Epidemiology of Polio Vaccine Acceptance*. During 1962 a more extensive study of this subject was conducted in Hillsborough County. The data from this study are currently being analyzed and the findings should be available during the year.

Study of Agricultural Migration and Maternity Care

The social scientist of the bureau staff assisted the Palm Beach CHD and the Bureau of Maternal and Child Health in their study of the maternity care behavior of a group of women in the migratory farm labor force. In an attempt to determine the influence of the mobility which is involved in their work upon their maternity care practices comparable data were collected regarding the maternity care behavior patterns of a group of non-migrants of the same racial group and similar socioeconomic status. While the maternity care behavior in each group falls short of recommended standards there was little difference between the two groups in this regard. The findings suggest that the factor of mobility may be less influential than is generally assumed.

A Study of Factors Related to Acceptance and Rejection of a Combined Nursing Program in 26 Florida Counties

In cooperation with the Community Studies Unit of SBH the social scientist assisted in conducting a study of factors related to acceptance and rejection of a combined nursing program in 26 Florida counties. The purpose of this study was to establish improved guidelines for the introduction of public health programs. The findings of the study have been distributed to the counties. Additional copies are available.

Collection of Data for Comprehensive Mental Health Planning

At present the bureau is working with the State Health Officer in formulating plans for the collection of data to be used for comprehensive mental health planning within the state. When completed this study will provide information regarding the prevalence and distribution of mental disorders within the population and a description of the facilities and services which are available for the prevention and treatment of mental disorders and the rehabilitation of persons suffering from these disorders. As such the findings will provide guidelines for the development of community-centered programs, services and facilities in this field.

TABLE 53

SUMMARY OF MENTAL HEALTH ACTIVITIES,
COUNTY HEALTH DEPARTMENTS,
1961-1962

	Public Health Nurse		Mental Health Worker		Health Officer	
	1961	1962	1961	1962	1961	1962
Number Patients Admitted to Service						
Child	1,398	1,355	1,509	1,103	706	783
On Furlough	2,319	3,046	1,094	933	136	212
Other Adults	1,879	1,720	933	1,026	227	177
Number Field Visits	17,609	20,738	7,002	6,435	128	95
Number Office Visits	6,597	5,531	9,501	14,647	3,822	4,224

TABLE 54
DISCHARGED PATIENTS BY CLINICS, TYPE OF SERVICE, CONDITION ON TERMINATION,
REFERRAL SOURCE, AND NUMBER OF NEW CASES
CHILD GUIDANCE CLINICS, 1962

CLINIC	TYPE OF SERVICE					CONDITION ON TERMINATION			REFERRAL SOURCE						Number of New Cases
	TOTAL PATIENTS	Diagnosis and Treatment	Diagnostic Study Only	Psychological Testing Only	Other Services	Improved after Treatment	Unimproved after Treatment	Not Treated	Self	School	Court	Agency	Physician	Other	
FLORIDA TOTAL	6,292	1,571	1,962	1,013	1,746	1,365	403	4,524	1,328	1,225	646	836	1,219	1,038	5,393
Alachua*	228	61	52	53	62	59	24	145	38	40	6	45	37	62	201
Bay	666	183	178	130	175	167	41	458	127	70	55	76	185	153	557
Broward	207	98	27	15	67	59	11	137	40	79	5	16	40	27	190
Dade (Child Guidance Clinic)	96	133	96	126	203	93	23	579	125	189	63	56	185	77	583
Dade (Juvenile Court Branch)	695	133	233	52	116	98	40	140	40	5	10	28	97	98	251
Dade (Child Guidance Clinic)	278	108	128	68	93	97	37	263	78	55	18	44	68	134	328
Duval (Adult Mental Health Clinic)	397	108	364	44	63	73	24	431	49	83	201	146	31	18	431
Escambia	528	57	364	63	228	210	42	296	156	104	35	61	102	90	469
Hillsborough	548	182	75	63	228	210	42	383	185	62	43	48	108	73	397
Leon	419	64	126	70	159	25	11	351	134	169	31	54	64	44	416
Manatee-Sarasota	496	136	89	94	177	119	26	351	134	169	31	54	64	44	416
Orange	366	67	153	70	76	74	16	276	95	105	4	48	41	73	330
Palm Beach (Child Guidance)	78	39	5	17	17	13	4	61	21	111	2	7	9	39	78
Palm Beach (Psychiatric Clinic)	574	122	221	148	83	115	25	434	217	111	30	120	65	31	456
Pinellas (St. Pete-Clearwater)	201	84	26	1	90	53	23	125	76	10	3	38	33	41	163
Pinellas (Adult Mental Health)	233	66	72	45	50	28	23	182	40	54	35	26	35	43	207
Polk	181	71	70	7	33	60	16	105	7	68	10	23	112	1	161
St. Lucie	181	71	70	7	33	60	16	105	7	68	10	23	112	1	161
Volusia	101	13	24	10	54	22	17	62	7	21	10	23	112	33	82

*Alachua County Health Department, Division of Mental Health, performs all of the above services but is not ready presently to report.

TABLE 55
DISCHARGED PATIENTS BY AGE, RACE, SEX, DIAGNOSIS, AND NUMBER TREATED
CHILD GUIDANCE CLINICS—1962

DIAGNOSIS	TOTAL PATIENTS	AGE IN YEARS										RACE AND SEX				NUMBER TREATED
										65 & Over		White		Non-white		
		0-4	5-9	10-13	14-17	18-20	21-29	30-44	45-64	Male	Fem.	Male	Fem.	Male	Fem.	
FLORIDA TOTAL	6,292	375	1,656	1,216	1,291	199	472	752	289	42	3,323	2,316	334	274	1,768	
BRAIN SYNDROME (Acute, Chronic) Associated with convulsive disorder (Idiopathic Epilepsy) Associated with Cerebral Arteriosclerosis or Senile Brain Disease	102	8	32	32	21	2	3	3	1		57	32	5	8	49	
All Other Brain Syndromes	11	2	1	1					2	6	5	6			2	
	189	28	79	40	30	1	4	4	2	1	120	50	14	5	47	
MENTAL DEFICIENCY (Familial or Hereditary)																
Mild	54	2	14	21	15		2				26	16	7	5	3	
Moderate	65	6	23	20	11	1	1	1	2		24	17	18	6	2	
Severe	23	5	6	5	5	1	1	1			6	6	8	3		
Severity not specified	3		1	1							1	1	1			
MENTAL DEFICIENCY (Idiopathic)																
Mild	184	23	68	46	44	2	1	3			90	39	39	16	10	
Moderate	165	16	60	38	44	1	2	3	1		56	39	30	40	8	
Severe	45	4	23	6	7	1	1	2	1		17	10	7	11	2	
Severity not specified	5	3	1	1	1							2	2	1		
PSYCHOTIC DISORDERS																
Involuntary Psychotic Reaction	12								11	1	2	10			2	
Affective Reactions	14				2			6	6		6	6	1	1	7	
Schizophrenic Reactions	244	5	17	18	40	14	53	81	16		110	97	25	12	119	
Paranoid Reactions	6						2	2	1		4	2			6	
Other Psychotic Reactions	1			1					3			1				
PSYCHOPHYSIOLOGIC AUTONOMIC AND VISCERAL DISORDERS (Psychosomatic Disorders and Organ Neuroses)																
	42	1	6	8	7	1	4	11	4		21	19	1	1	26	

TABLE 55 (Continued)
DISCHARGED PATIENTS BY AGE, RACE, SEX, DIAGNOSIS, AND NUMBER TREATED
CHILD GUIDANCE CLINICS—1962

DIAGNOSIS	TOTAL PATIENTS	AGE IN YEARS								RACE AND SEX				NUMBER TREATED		
		0-4	5-9	10-13	14-17	18-20	21-29	30-44	45-64	65 & Over	White		Non-white			
											Male	Fem.	Male	Fem.		
PSYCHONEUROTIC DISORDERS	243										124	107			12	157
Anxiety Reaction	9		57	42	38	11	44	41	10		2	7			4	6
Dissociative Reaction	33		3	8	6	1	9	3	6		7	22	1	1		11
Conversion Reaction	34		3	9	6	1	3	4	4		11	21				19
Phobic Reaction	22	2	10	9	3	3	3	7	3		11	11				11
Obsessive Compulsive Reaction	139		3	1	3	3	25	46	38	11	41	91			7	98
Depressive Reaction	39		3	8	7	3	8	9	3		17	21	1			25
Psychoneurotic Reaction, Other				10	4	2										
PERSONALITY DISORDERS	182										105	59	7	11		62
Personality Pattern Disturbance	878	8	21	26	60	13	18	36	8	2	519	325	21	13	390	
Personality Trait Disturbance	79		2	6	35	5	9	16	6		41	23	10	5	30	
Sociopathic Personality Disturbance	94	21	48	10	15						61	26	5	2	27	
Special Symptom Reaction																
TRANSIENT SITUATIONAL PERSONALITY DISORDERS	3				2										2	
Gross Stress Reaction	103					4	37	47	15		2	72		4	90	
Adult Situational Reaction	5										27	3			1	
Adjustment Reaction of Infancy	749	37	451	251	10						513	204	21	11	386	
Adjustment Reaction of Childhood	420		1	86	321	11	1				233	142	22	23	153	
Adjustment Reaction of Adolescence	4								2			4				
Adjustment Reaction of Late Life																
NO PSYCHIATRIC DISORDER FOUND	193	74	46	25	25		4	11	7	1	97	76	10	10	13	
NO DIAGNOSIS MADE	1,898	125	473	284	325	82	175	297	119	18	965	793	77	63	3	

FLORIDA COUNCIL ON TRAINING AND RESEARCH IN MENTAL HEALTH

The following citizens served on this Council during 1962:

John T. Benbow, M.D., Macclenny; Mrs. Barbara Buchanan, Gainesville; Loyal Frisbie, Bartow; Mrs. E. W. Gautier, New Smyrna Beach; Victor B. Johnson, Ed.D., Tallahassee; Major General J. K. Lacey, Panama City; Kent S. Miller, Ph.D., Tallahassee; Coyle E. Moore, Ph.D., Tallahassee; Edwin W. Peck, Gainesville; Mrs. E. Clyde Vining, Miami; W. M. C. Wilhoit, M.D., Pensacola. Dr. Johnson and Mr. Frisbie served for a six-month period as chairman and vice chairman-secretary respectively. Dr. Miller was elected chairman and Major General Lacey was elected vice chairman and secretary for the fiscal year beginning in July. Dr. Wilhoit resigned the latter part of the year and Philip B. Phillips, M.D. of Pensacola was appointed to fill this vacancy. Three meetings were held during the year: in Hollywood, Tallahassee and Winter Park.

Training stipends were awarded as follows: Psychiatric social work 16, psychiatric nursing five, and clinical psychology nine. The names of stipend recipients in 1962 are given elsewhere in this report (see Scholarships for Professional Education). Educational programs for nurses employed in mental health and psychiatric facilities were co-sponsored, with 92 nurses receiving supplementary instruction in psychiatric nursing for employed nurses.

On recommendation of the Council the SBH granted \$23,561 for research in mental health as follows:

Relation of Parental Authoritarianism to Severity of Child's Emotional Illness, John J. Schwab, M.D., The J. Hillis Miller Health Center, University of Florida, Gainesville.....	\$ 700
Psychiatric Sequelae of Gynecological Surgery, Gustave Newman, M.D., The J. Hillis Miller Health Center.....	301
Behavioral Classification of Child Emotional Disorders, Ralph Mason Dreger, Ph.D., Jacksonville.....	5,000
A Project Related to Sex in Early Grades, Dorothy S. Minchew, Principal, Southside Estates Elementary School, Jacksonville.....	2,560
Effect of Incarceration on the Family, George C. Killinger, Ph.D., Florida State University, Tallahassee.....	10,000
Investigation of Psychiatrically-Treatable Syndromes of Childhood, R. P. Emerson, M.D., Director of Dade County Child Guidance Clinic.....	5,000

FRANK S. CASTOR, Ph.G.
Director

This bureau is charged with the administration and enforcement of state laws dealing with narcotics, barbiturates and amphetamines (legal and illegal), drugs and cosmetics, pharmacy, medical practice, other practitioners of the healing arts and registration of such practitioners, drugstores and others legally dispensing or administering narcotics and restricted drugs.

Enforcement and inspectoral personnel numbered 11 including the director. This is two more than were employed at the close of the previous year. In addition to the offices in Miami, Tampa, Tallahassee and Jacksonville, the bureau opened during the year a central district office in Orlando with one inspector. All have police power in making arrests or assisting other officers in preparation of cases for court action.

Arrests of all types numbered 332, an increase of 43 over those of 1961. Narcotics were involved in 202 cases, 66 more than last year. The figures show that 36 persons were confined to state institutions for medical treatment for narcotic addiction; these persons were not charged with a crime. There were also 75 arrests for violations of the barbiturate and amphetamine law, a drop from the figure of 98 in 1961. Violators in this instance were found at drugstores, truck stops, night clubs, etc. There were 12 arrests in pharmacy and five in medicine for practicing without a license. Two arrests occurred in connection with the enforcement of the relatively new drug and cosmetic act, while hundreds of inspections were made resulting in minor corrective actions not involving the courts. This law was enacted to protect the public against defective or impure drugs and cosmetics or improper labeling of such items manufactured within the state and not subject to federal laws. Restraint has been used in the enforcement of this law to enable the drug and cosmetic industry of the state to adjust its operations toward compliance. Voluntary corrections of practice and labeling were permitted in cases where the infractions were technical rather than criminal. However, 10 products were removed from sale during the year.

One tragic side of the narcotic problem is reflected in the fact that instances occurred in which practicing physicians and nurses became involved as narcotic addicts. In most cases this occurs when illness, overwork or other intolerable pressure overcomes caution and they try to find relief in drugs. Action taken in some of these cases consisted of the surrendering of the doctors' federal narcotic tax stamps, the license which permits them to prescribe and administer narcotic drugs. All cases involving physicians or nurses in narcotic violations are referred to the Florida Board of Medical Examiners or

the Florida Board of Nursing for such action as they may deem necessary.

Another significant factor in the narcotic enforcement field during the year was the continued presence of 150,000 or more Cuban refugees in the Dade County area. Enforcement officers do not attribute to these people a disproportionate amount of narcotic violations but do state that such infractions have increased in the area in proportion to the increase in the population. Cocaine, found in insignificant amounts prior to the advent of the Cubans, is now seized regularly and in much larger quantities. Violations of the medical and pharmacy laws have also been noted among these displaced persons. In such cases corrective measures have been taken.

Bureau personnel made 1782 open inspections during the year. This work is defined as including unscheduled visits to drugstores, sundry stores, hospitals, wholesale drug houses and all other properties subject to the jurisdiction of the bureau. Investigations, those visits made where a complaint has been made or a suspicion exists, totaled 1997. These resulted in the 332 arrests already mentioned and 112 corrections of violations without legal action. The remainder involved cases where no action was practical for some reason, such as lack of evidence, false rumor or cessation of illegal activity.

The 332 arrested persons were handled by the courts in the following manner: 116 received average sentences of approximately two years; probation, 112; discharged or nolle prossed, 31; acquittals, 20; jumped bail, two; adjudged insane, three. Total fines assessed were \$5150.

Bureau personnel attended the International Narcotic Enforcement Officers Association Conference in New York City, and the National Association of Food and Drug Officials in Miami.

Educational activity has always been considered of prime importance by the bureau. It is properly felt that the only way to reduce the need for police action is to increase the understanding of the public and instill, particularly in the youth of the state, a healthy respect for the dangers inherent in the improper use of narcotics, barbiturates and amphetamines. Inspectors have responded with alacrity to any opportunity to speak before schools or colleges, civic clubs, PTA groups, legal, medical or other societies and police groups. Some 95 such talks were given during the year before approximately 5000 people. On such occasions, the bureau personnel uses visual aids and samples of narcotic materials to assist in teaching understanding of the law, recognition of illegal merchandise and activities and the need for cooperation with enforcement officers. Emphasis is placed on the advisability of reporting any suspicious situations with the explanation that only the trained officer is qualified to determine whether further action is justified.

TABLE 56
SUMMARY OF ACTIVITIES, 1962

Investigations	1997
Open inspections	1782
Arrests	332
Violations corrected where no legal action was taken	112
Aggregate sentences imposed by courts	305 years
Aggregate fines imposed by courts	\$5150.00
Defendants receiving probation, deferred, withheld or suspended sentences	112
Cases discharged or nolle prosequi by courts	31
Narcotic addicts confined to state or federal institutions for treatment	36
Persons acquitted by the courts	20
Talks made	95
Drugstores registered for 1962-63	1608

TABLE 57

MEDICAL PRACTITIONERS REGISTERED WITH THE BUREAU
OF NARCOTICS BY PLACE OF RESIDENCE,
DECEMBER 31, 1962
(Excludes Deceased Practitioners)

COUNTY	Total	Medical Doctors	Osteo- paths	Chiro- practors	Naturo- paths	Chiro- podists	Physio- therapists
Total	7042	5499	450	559	149	154	231
Alachua	194	174	1	5		2	12
Baker	4	4					
Bay	49	39	3	5		1	1
Bradford	9	7	1	1			
Brevard	132	108	2	16		3	3
Broward	567	404	71	44	12	16	20
Calhoun	4	3		1			
Charlotte	14	11		3			
Citrus	9	7		1			1
Clay	15	14	1				
Collier	17	15		2			
Columbia	14	12		1			1
Dade	1976	1602	114	120	48	40	52
DeSoto	10	8	1	1			
Dixie	1	1					
Duval	529	459	13	30	7	8	12
Escambia	164	142		11		2	9
Flagler	3	3					
Franklin	8	5	3				
Gadsden	23	21	2				
Gilchrist	1	1					
Glades							
Gulf	4	4					
Hamilton	4	4					
Hardee	12	10		1		1	
Hendry	8	7		1			
Hernando	8	7		1			
Highlands	25	21	2	2			
Hillsborough	467	350	22	41	27	11	16
Holmes	3	3					
Indian River	33	25	3	3		1	1
Jackson	17	15	1	1			
Jefferson	4	4					
Lafayette	1	1					
Lake	60	42	3	9	1	1	4
Lee	73	57	4	7	2	2	1
Leon	101	84	3	4	2	2	6
Levy	3	3					
Liberty	1	1					
Madison	6	6					
Manatee	87	55	9	15	4	1	3
Marion	49	40	4	3		1	1
Martin	12	11		1			
Monroe	41	31	5	2			3
Nassau	9	9					
Okaloosa	30	25		5			
Okeechobee	6	5		1			
Orange	450	332	36	41	9	10	22
Osceola	16	10	3	3			
Palm Beach	363	285	16	37	4	11	10
Pasco	26	14	7	5			
Pinellas	638	436	78	58	21	22	23
Polk	217	178	4	22	2	5	6
Putnam	25	20		3	2		
St. Johns	24	20		2		2	
St. Lucie	37	29	3	4		1	
Santa Rosa	13	12		1			
Sarasota	165	118	3	18	4	5	17
Seminole	41	32	1	5	1	1	1
Sumter	2	1	1				
Suwannee	5	4		1			
Taylor	8	5		2	1		
Union	2	1	1				
Volusia	189	129	29	18	2	5	6
Wakulla	2	2					
Walton	8	8					
Washington	4	3		1			
Out of State	3402	2920	182	189		57	54
TOTAL	10444	8419	632	748	149	211	285

J. A. MULRENNAN, B.S.A.
Director

A year of records is the way 1962 can be classified. It was one of the driest springs experienced in many years. This was followed by moderately heavy rains, and then an epidemic of St. Louis Encephalitis (SLE) in August and September (see report of Division of Epidemiology elsewhere in this Report). Then to top off the year, December was the coldest month to be experienced in this century.

In the 1961 annual report it was stated that this arthropod-borne disease (SLE) will become more prevalent in the future. This has now become a reality, and the mosquito which was suspected of transmitting the disease in 1959 has been definitely incriminated. Thirty-three pools of *Culex nigripalpus* (each approximately 50 mosquitoes) were found positive (SLE) out of 46,128 *C. nigripalpus* processed. One pool of *Anopheles crucians* and one pool of *Culex (Melanoconion)* sp. were also found positive for SLE virus. In addition, there were 25 positive pools of *Anopheles crucians* of a Cache Valley-like virus isolated from 8610 *A. crucians*, and two Cache Valley-like virus were isolated from two positive pools of *C. nigripalpus*.

In September at the peak of the epidemic, an extensive mosquito control program was inaugurated which consisted of a premise clean-up carried out by home owners; the larvicidal program was intensified; and the adulticidal program for all of the populated areas was placed on a four-day schedule. It was expected that after three weeks of extensive fogging with a combination of Malathion and Lethane 384, that there should be a marked decrease in reported human cases, a fact which was definitely borne out.

It is believed at this time that the only solution for the control of SLE is by destroying the infected *C. nigripalpus* and other infected mosquitoes with fogs containing either Malathion or Dibrom. The one fact that must be obtained as soon as possible is whether or not the virus over-winters in the mosquito. Should it be found that the virus over-winters in mosquitoes, or that there is a low level of transmission which takes place during the winter months, then a ground and air fogging program could be designed to try and knock out the last vestige of the transmission.

There is one thing that is evident at this time, and that is that it will never be economically possible to control *C. nigripalpus* by now known source reduction methods, due to the extent and multiplicity of breeding habits. Until other methods of controlling encephalitis are devised, the only practical approach at this time is to put out sentinel chicken flocks, cared for by cooperators, to determine the virus index in a given locality; then to fog by ground and air equipment the focus of infection.

ARTHROPOD CONTROL

Source Reduction Accomplishments

Source reduction operations continued to be an important part of the total arthropod control program for the majority of the counties and districts. The state fund matching rate for the calendar year averaged 31.25 per cent, although by the end of the year, the rate had dropped to 28 per cent.

The cost for hydraulic dredging and filling has been in a large measure responsible for Brevard County transferring one of its two 10-inch hydraulic dredges over to the Board of County Commissioners around October 1, 1962. By the end of the year, Volusia County also discontinued using their 10-inch dredge and expected to offer it for sale during the early part of 1963.

Three additional counties—Dixie, Marion and Seminole—plus St. Cloud in Osceola County, entered the state program in 1962 primarily for the purpose of obtaining state aid in setting up sanitary landfill programs. The operation of sanitary landfills throughout the state is requiring increased use of draglines which normally would be doing machine ditching for mosquito control. As a result, there has been a decrease since 1961 in the number of miles of machine ditches dug, and the total cost of sanitary landfill operations has increased.

There follows a summary of the source reduction work accomplished in 46 counties (49 programs), and the labor cost only for execution of this work:

	1961	1962
Machine Ditching		
No. of counties participating	32	33
Miles of ditches dug or maintained	563.5	518.
Cubic yards earth excavated	4,395,342	4,232,046
Average labor cost per cubic yard	\$0.089	\$0.088
Machine Diking		
No. of counties participating	5	5
Miles of dikes constructed, or rebuilt	153.2	71.5
Cubic yards earth excavated	809,021	893,993
Average labor cost per cubic yard	\$0.087	\$0.076
Hydraulic Dredging		
No. of counties participating	3	3
No. of dredges used	4	4
Cubic yards earth fill placed	1,077,820	747,200
Average labor cost per cubic yard	\$0.082	\$0.140
No. acres mosquito breeding area eliminated	193	95
Deepening and Filling (Draglines & bulldozers)		
No. of acres improved	41	98
Average labor cost per acre	\$161.39	\$73
Cisterns, Cesspools and Wells Filled		
No. of counties participating	1	1
No. cubic yards fill material required	1,083	419
No. of cisterns, etc., filled	184	64
Avg. cost per cistern (Labor & fill)	\$33.83	\$44.22

Vertical Drainage		
No. counties participating	1	0
No. of holes drilled and blasted	1,081	0
Avg. cost per hole (Labor & explosives)	\$10.01	0
No. acres breeding area controlled	1,120	0
Sanitary Landfills		
No. counties & districts participating	33	35
No. landfill sites operated	70	73
Cubic yards garbage buried	4,311,496	4,909,266
Avg. labor cost per cubic yard	\$0.060	\$0.063

Temporary Control Measures

The repetitive application of chemicals for temporarily controlling arthropods in both the larval and adult stages was carried out in 52 counties and/or districts.

With the exception of one county, adulticiding measures were carried out by the application of a thermal aerosol fog with ground equipment. Several counties supplemented the ground equipment with thermal aerosols applied by airplane.

The State Board of Health (SBH) Entomological Research Center released recommendations for an alternate chemical (Dibrom), which can be used in making an insecticidal formulation. Ground adulticiding was done with either this formulation, or the standard 3-3-94 mixture of Malathion 90, Lethane 384, and fuel oil. For the first time in several years there is available two chemical formulations for adulticiding work. It is expected that competition between the manufacturers of these chemicals will result in lower prices to the state and counties.

The following is a summary of the temporary control work performed for the control of mosquitoes:

	1961	1962
Ground Equipment		
Miles fogged with ground equipment	251,515	382,859
Gallons insecticidal formulation used	1,508,798	2,373,711
Labor cost per mile fogged	\$0.667	\$0.513
Miles sprayed or dusted (other chemicals)	3,557	—
Pounds or gallons other insecticides applied	24,951	—
Labor cost per mile, sprayed or dusted	\$1.54	—
Treatments by Airplane		
Gallons of insecticide applied (fogging)	51,360	122,445
Acres treated	792,754	1,222,956
Labor cost per acre	\$0.008	\$0.009
Gallons of insecticide applied (spraying)	75,979	128,003
Acres treated	129,356	262,956
Labor cost per acre	\$0.071	\$0.117
Pounds of Paris green pellets applied (larviciding)	107,760	292,600
Acres treated	6,009	14,821
Labor cost per acre	\$0.947	\$0.778

The increase over the normal expected increase in fogging operations can be attributed to the encephalitis epidemic in the four Tampa Bay counties, with the concurrent "scare" in other counties, resulting in a greater effort to kill mosquitoes and prevent the spread of the disease.

Dogfly Control

The dogfly control program continued in its normal yearly pattern in west Florida counties. The flies were kept under control; only two or three small and local outbreaks being reported. The treatment method continued to be the spraying of the marine grass deposits along the embayment shoreline with a five per cent DDT water emulsion.

The following is a summary of the dogfly control work performed in the eight most western Florida counties which border on the Gulf of Mexico:

	1961	1962
Miles of shoreline treated	1,639	3,301
Gallons of 35 per cent DDT concentrate used	7,660	15,705
Average labor cost per mile	\$6.09	\$3.70
No. man-hours labor required	7,912	9,285

Counties Participating and Local Fund Budgets

The following counties participated in the State Arthropod Control Program during the year. Based on the fiscal year of the counties (October 1 to September 30), and as of December 31, 1962, the total amounts of local funds shown in the certified budgets to be expended for arthropod control activities are as follows:

Alachua.....	\$ 54,856.00	Lee (Ft. Myers Beach).....	\$ 76,264.00
Bay.....	73,005.30	Leon.....	60,000.00
Bay (Gulf Beaches).....	38,284.76	Levy.....	12,000.00
Bradford.....	8,906.54	Madison.....	1,200.00
Brevard.....	288,976.00	Manatee.....	92,073.19
Broward.....	59,953.00	Marion.....	20,000.00
Calhoun.....	3,150.00	Martin.....	34,000.00
Charlotte.....	57,405.15	Monroe.....	110,000.00
Citrus.....	83,229.34	Nassau.....	46,750.00
Collier.....	61,448.33	Okaloosa.....	39,565.00
Columbia.....	13,000.00	Orange.....	54,600.00
Dade.....	197,460.00	Osceola (Kissimmee).....	14,401.48
Dixie.....	4,000.00	Osceola (St. Cloud).....	18,692.64
Duval.....	77,518.07	Palm Beach.....	255,496.00
Escambia.....	112,134.45	Pasco.....	57,945.48
Flagler.....	14,372.31	Pinellas.....	432,556.00
Franklin.....	15,000.00	Polk.....	160,537.50
Gadsden.....	12,460.00	Putnam.....	22,079.58
Gulf.....	35,500.00	St. Johns.....	69,665.74
Hardee.....	3,833.46	St. Lucie.....	127,768.26
Hernando.....	2,600.00	Santa Rosa.....	15,177.75
Highlands.....	2,397.93	Sarasota.....	98,525.00
Hillsborough.....	227,906.00	Seminole.....	15,000.00
Holmes.....	3,000.00	Suwannee.....	9,000.00
Indian River.....	298,449.48	Taylor.....	4,746.44
Jackson.....	4,880.00	Volusia.....	280,675.00
Jefferson.....	10,157.47	Wakulla.....	15,000.00
Lake.....	109,299.40	Waton.....	6,500.00
Lee.....	268,837.82	Washington.....	2,800.00
Total local funds appropriated.....			\$4,295,039.87
Total funds appropriated by the state.....			1,650,000.00
GRAND TOTAL.....			\$5,945,039.87

Engineering

Countywide surveys were made, with the assistance of the county health department (CHD) sanitarians, in Seminole, Marion and Dixie for the purpose of recommending areas, methods and budgets for a sanitary landfill operation most suitable for each county within the limitation of the amount of funds that could be made available. These three counties began participation in the state aid program on October 1, 1962.

The city of St. Cloud re-entered the program also on October 1, 1962, following surveys and conferences between representatives of this office, the Osceola CHD and city officials.

The city of Key West followed through on one of the possible solutions for their garbage disposal problem as set out in a report and recommendations prepared by this office in 1961. A sanitary landfill is now being operated for Key West without benefit of state funds, or any cost to the taxpayers.

Fifty-eight governmental units, located in 55 counties, are now participating in the state arthropod control program. The 59th unit, Northeast Duval County Mosquito Control District, was created in the summer of 1962, but too late to receive tax monies this year. It is anticipated this district will probably borrow money and enter the program on July 1, 1963.

A detailed survey and field check of the Palm Beach County Mosquito Department equipment, operations and projects were made in company with personnel of that department in November. A report was prepared in which several recommendations were offered for consideration by officials of Palm Beach County to effect improvements in their program. These recommendations will probably be studied and considered in the early part of 1963.

Regional Entomologists' Activities

The bureau has maintained regional entomologists in five areas to aid counties and arthropod control districts in problems connected with planning, budgeting, operating, evaluating and reporting activities of permanent and temporary mosquito control and landfill operations; to maintain liaison between units and the central office; and, serve as field men for problems of an entomological nature when and where they develop, as exemplified by the past summer's encephalitis problem in Pinellas County, when three men were called to help in that emergency.

Varied duties of the last year include the following: participation in SBH orientation and sanitarian training classes; answering requests for encephalitis talks at civic clubs; showing films and commenting on mosquito problems at district organization meetings; assisting in establishing arthropod units in Dixie, Marion, Osceola, Seminole and Duval Counties; training and assisting county and district personnel in the preparation of financial and progress reports; continuation of extension

work in experiments on the application of Paris green pellets by helicopter; investigating impounded water complaints; assisting in the structural pest control and lawn spraying programs (especially south Florida); locating, relocating, arranging for repairs and securing co-operators in the light trapping program; and, helping people in insect and pest control who contact the bureau.

Arthropod Identification Laboratory

The identification of arthropods of public health importance, principally mosquitoes and their allies, continues at Jacksonville. No unusual complications have occurred during the past year except an unusually heavy mosquito season and loss of experienced personnel to the encephalitis laboratory in Tampa.

The basic need for mosquito information to evaluate general mosquito populations and to guide effective operations throughout the state is supplied by identifying collections from 43 light traps operated around the periphery of the state near salt-marsh areas, as published weekly in the "Salt Marsh Mosquitograms," and from 77 other traps scattered throughout the state, including those at Woodruff Dam and the North Bay Impoundment in Bay County. The laboratory identified 10,210 adult and 83 larval collections containing a total of 1,555,970 adult and 1132 larval specimens respectively. This does not include specimens brought to the laboratory by the general public and their almost daily requests for information on arthropods or miscellaneous pests.

The 8064 adult *Mansonia perturbans* collected in 1959 near Monticello by a light trap in one night was almost duplicated in 1962 by an 8000 collection, to confirm the first collection and establish what is believed to be a world record for the species.

A biologist, supported by a National Institutes of Health (NIH) grant has identified 20,818 Chironomidae from light traps, 235 others from collections sent for identification and 50 miscellaneous insects. Further progress has been made in successfully rearing 85 adults (14 per cent) from 596 Chironomid larvae.

STRUCTURAL PEST CONTROL

The bureau continued for the fifteenth consecutive year its responsibility for licensing the structural pest control industry and enforcement of the state structural pest control law. SBH Structural Pest Control Regulations were filed on time with the Secretary of State in compliance with the Uniform Administrative Procedures Act. This had the effect of changing significantly the format but not the content of the regulations. No public hearings were held during 1962 to consider changes in the regulations or the adoption of minimum standards for termite control. Minimum standards are being studied as a possible means of bringing to the public of Florida worthwhile, effective termite preventive-control service based on irreducible, minimum measures recognized as necessary. As a constructive outgrowth of these efforts

the Florida Pest Control Association, in session at its 1962 convention, approved certain "Recommended Procedures for Subterranean Termite Control."

Representatives of the bureau met with state pest control officials at Raleigh, North Carolina, in March; and with the Structural Pest Control Commission of Florida, the Florida Pest Control Association, and other segments of the industry from time to time during 1962. These contacts, together with numerous visits to individual licensees and certified operators, have maintained the close working relationships conducive to effective, consistent enforcement benefiting both the public and industry. Considerable attention is being given to the matter of safety in home fumigation practices.

The number of licensed business locations increased eight per cent, while identification card holders increased slightly over six per cent. Investigations of homeowners' complaints (involving licensees) and unlicensed operators decreased by 14 and 40 per cent respectively. Regional entomologists answered an additional 145 homeowner complaints or inquiries. The Commission renewed 432 certificates and issued 26 new certificates during the year.

TABLE 58

SUMMARY OF STRUCTURAL PEST CONTROL ADMINISTRATION AND ENFORCEMENT IN FLORIDA, 1958-62

Registration	1958	1959	1960	1961	1962
State Board of Health					
Licenses issued	228	228	261	274	296**
State Board of Health					
Licenses revoked	0	2	2	0	0
State Board of Health					
Licenses placed on probation*	1	0	5	1	0
Employees' Identification Cards					
issued	2152	2232	2854	2818	2996**
Employees' Identification Cards					
revoked or stopped	—	—	—	0	7
Employees' Identification Cards					
on probation	—	—	—	5	0
Thermal-Aerosol Certificates of					
authorization renewed	14	14	12	12	9
Enforcement					
Homeowner complaints investigated	97	162	87	94	81
Unlicensed illegal pest control					
operators investigated	5	9	15	35	21
Warrants filed against unlicensed					
operators	2	1	5	15	5
Letters of warning issued to					
unlicensed operators	—	2	6	10	9
Enforcement miles traveled					
(Jacksonville office only)	—	11,583	16,647	18,222	16,865

(*) By Structural Pest Control Commission of Florida.

(**) Excluding 29 and 136 additional, reissued, change-of-address licenses and identification cards respectively.

Licenses, identification cards and thermal-aerosol certificates issued are based on 1961-62 licensing year.

All other entries are based on calendar year, 1962.

RESIDENTIAL LAWN SPRAYING

In June 1960, as the result of a need to protect the public health, the SBH adopted regulations to control the commercial use of highly toxic pesticides used in residential areas as horticultural sprays. These regulations set forth technical standards and safety requirements that had to be complied with if highly toxic pesticides were applied in residential areas.

In 1961 these regulations were contested in the courts by the Florida Structural Pest Control Association. The authority of the Board to promulgate and adopt rules and regulations governing the commercial spraying of lawns and ornamental shrubbery was questioned by the Florida Pest Control Association, said organization contending that this was the responsibility of the State Department of Agriculture. The case was heard in the Circuit Court of Duval County and was decided in favor of the SBH. The Pest Control Association appealed the case to the First District Court of Appeals.

In 1962 the First District Court of Appeals reversed the lower court's decision and stated that the Board did not have the power under its existing authority to promulgate the Residential Pesticide Spraying Regulations. The Board appealed this decision to the Supreme Court of Florida. The Supreme Court refused to hear the case, thus upholding the District Court's decision. The Board has requested a rehearing. In compliance with the court's decision, this bureau has suspended the issuance of new certificates and permits.

A summary of the administration and enforcement of lawn spraying regulations in 1961 and 1962 are as follows:

	1961	1962
Examinations taken and passed	73	62
Employers' Certificates issued	113	62
Employers' Certificates renewed	801	836
Employers' Certificates inactive	69	77
Permits issued	2779	2706
Complaints received	29	36
Violations reported	21	19

ENTOMOLOGICAL RESEARCH CENTER

MAURICE W. PROVOST, Ph.D.
Director

Aside from the usual whittling away at the critical unknowns in mosquito biology and at the inadequacies in mosquito control, this year was characterized by advances in disease-vectoring (encephalitis) research, changes in organization, and improvement of laboratory facilities.

The termination of three NIH grants in 1961 was offset in 1962 by the extension of one and the activation of two new ones.

ERC Research Grants—1962 Summary

Source	Investigator	Investigation	Sum	Time Status
NIH.....	Harrington.....	Biology of larvivoracious fish.....	\$ 11,000.00	5th and last year
NIH.....	Bidlingmayer.....	Mosquito sampling.....	11,103.00	4th and last year
NIH.....	Lea.....	Autogeny in mosquitoes.....	26,450.00	3rd year, 2 to go
NIH.....	Rathburn.....	Insecticidal aerosols.....	5,536.00	2nd year, 1 to go
NIH.....	Yount.....	Lake limnology.....	20,159.00	2nd year, 1 to go
NIH.....	Lum.....	Mosquito larval nurture.....	29,854.00	1st year, 4 to go
NIH.....	Provost.....	Field production of mosquitoes.....	23,701.00	1st year, 2 to go
USFWS.....	Trost/Provost.....	Wildlife effects of salt-marsh flooding.....	6,000.00	2nd year, 1 to go
			\$133,803.00	
Applied for in 1962 and Approved for 1963				
NIH.....	Harrington.....	Biology of larvivoracious fish.....	\$ 23,799.00	5 years
NIH.....	Bidlingmayer.....	Mosquito populations.....	26,048.00	5 years
NIH.....	Van Handel.....	Lipid synthesis in insects.....	53,688.00	5 years
		Continuing grants.....	103,567.00	
		New grants.....	103,535.00	
		Approved 1963 Total.....	\$207,102.00	
		Pending.....	11,828.00	
		Possible 1963 Total.....	\$218,930.00	

Four other NIH grants and the U. S. Fish and Wildlife Service contract continued. Total federal support advanced from \$128,701 to \$133,803. By the end of the year, grant approvals had secured \$207,102 of federal support for 1963. This will bring such support to a par of 50/50 ratio to state support for the Entomological Research Center (ERC).

CONTROL RESEARCH SECTION

Water-Management Studies

Data obtained from the Gifford experimental plots in 1962 confirmed the previous indication that seasonal flooding by artificial methods is adequate to control the breeding of salt-marsh mosquitoes in diked salt marshes on the Florida East Coast. Plots that were force-flooded only from March to September showed an average of only 0.12 *Aedes taeniorhynchus* larvae per dip, as compared to 7.16 per dip in undiked marshes nearby. Breeding of other mosquito species was also minimal in these seasonally flooded plots. *C. nigripalpus*, the encephalitis vector, averaged fewer than one larva per hundred dips, and no *Mansonia* larvae at all were found. This finding that the salt-marsh need not be flooded from October to April to eliminate salt-marsh mosquito production has several important meanings: seasonal flooding will generally be much more economical than year-round; it will minimize the breeding of *Anopheles*, *Culex* and *Mansonia* mosquitoes, among whom are the chief disease vectors; and it will permit a yearly interchange of waters with bays and estuaries, which may be essential to the preservation of certain fish, shellfish and other natural resources.

A cooperative project was initiated in 1961 with Deseret Farms, Inc., and the Brevard Mosquito Control District to study water management practices for control of *Psorophora* mosquito breeding on improved pastures. Construction specifications for this project were not followed in their entirety, viz., ditches were dug to proper depth but none of the specified grading between ditches was done. Data showed that *Psorophora* were not produced in the ditches of the project, as they were in untreated plots; but mosquito production continued on the ungraded pasture between ditches.

Adulticiding Studies

There were two significant developments in mosquito adulticiding studies in 1962: the successful development of a procedure for photographing the thermal aerosol (fog) particles under field conditions and the development of a competitive situation in the cost of insecticides for fogging.

The successful development of the aerosol camera is considered a major technical breakthrough in methods for the accurate measurement of individual particles in insecticidal fogs. This development will make possible more accurate studies on the effects of particle size on

mosquito kill, a problem that might be of considerable importance in the most effective and economical use of this method of mosquito control.

In 1960, this Section reported on preliminary work with Dibrom as a new insecticide for fogging. However, lack of label approval for use of this chemical in urban fogging and a slow response by the manufacturer prevented further investigations during 1961. Early in 1962 label approval for fogging with Dibrom was granted and an oil-soluble formulation was made available for further testing. Intensive testing to determine the most economical, effective dosage of Dibrom as an insecticidal fog was started immediately. This was completed and as a result it is estimated that the cost of fogging insecticides in Florida during 1963 will be approximately 29 per cent less than in the previous six years. In round figures, this will mean a savings of approximately \$200,000 in this program statewide during 1963.

Midge Control Studies

Progress on control studies against midges (blind mosquitoes) which reproduce in large numbers in the lakes of central Florida was greatly enhanced when Dr. Richard Patterson assumed responsibility for these studies in May 1962.

Previous work with Baytex as a possible larvicide was resumed with promising results. Studies were initiated to determine the effects of this insecticide on midge larvae in relation to dilution in water of various depths and to determine the effects of this chemical on other animals and plant life in the lakes. Because these lakes constitute a natural resource of great value and because they are used so extensively by the public for swimming, boating and skiing, it becomes a delicate problem to take out of this habitat only one or a few of the undesirable animals while creating a minimal risk to the desirable forms of life and safety to the public. Therefore, such studies must proceed with due caution and thoroughness. Also, these factors limit greatly the kinds and numbers of suitable chemicals available for testing in this particular program. Another factor that continues to create a handicap in these studies is the lack of a method for rearing or keeping midge larvae alive under laboratory conditions. This requires that practically all evaluation work on prospective chemicals be done in the field, thus the rate at which screening can be done is much retarded.

In addition to the research studies, the Control Research Section at the Winter Haven Substation acts in a limited way as a consulting service to communities in central Florida on their midge control problems. The staff recorded eight consultations ranging geographically from Lake County to Highlands County during May to December 1962.

ETHOLOGY SECTION

Colonizing Studies

With the incrimination of *C. nigripalpus* as a disease vector in Florida, a renewed effort was launched in the fall to colonize this

species. A very low incidence of autogeny in this species was found. It was later learned that egg-production dropped off markedly outdoors as fall advanced into winter. This was remarkable because bird-baited traps continued to collect large numbers of presumably blood-hungry females. An indication of what might be happening was obtained when the Physiology Section looked into the matter and found that females blood fed in the laboratory did not develop eggs. If gonotrophic dissociation (blood meals used for energy rather than for egg development) occurs in the winter, this could be of very great importance in the encephalitis epidemiological picture. This is obviously a critical matter to resolve and an all-out effort to do so was immediately begun.

The feeding procedures necessary to colonize the species were studied and progress made. It appears, however, that the big hurdle is obtaining proper mating and insemination of females—as in so many other mosquitoes. Studies of reproductive behavior are underway in both field and laboratory. In the latter full use is made of the large cage in one of the constant-temperature rooms which is equipped for easy programming of any day-night-twilight rhythm.

Colonizing efforts were continued in 1962 with the non-biting mosquito, *Toxorhynchites rutilus*. This would be a valuable experimental mosquito, not only because it is completely and inescapably autogenous but because its enormous size would render it so much easier to manipulate in physiological and biochemical experimentation.

ECOLOGY SECTION

Larvivoracious Fish Studies

The year-round identification and measurement of food organisms taken by Marsh Killifish, *Fundulus confluentus*, has been completed for a minimum 200 fish per month. Egg, ovary, testes and other measurements were made on the same fish. The data are now being prepared for analysis to establish length of breeding season and food selection according to season and habitat. This will complete studies of food requirements and food selection in brackish-water, mosquito-eating fish and lay the ground for a study of food production on natural and impounded salt marshes. From this it is hoped to determine what food levels are necessary to maintain effective populations of mosquito-eating and other fishes on salt marshes variously treated.

Mosquito Sampling

The big problem of measuring mosquito populations was studied continuously through the year. The field work of sampling populations with various techniques at Marianna, Myakka and Vero Beach was terminated in 1961, but it had proven impossible for the identification and counting work to keep abreast of the collections. The main emphasis in 1962 was therefore on identification and data analysis.

Midge Studies

The work done during 1962 was primarily concerned with carrying out an aeration study on Lake Cannon, with various related studies

on it and on the control, Lake Mirror. In addition, a series of small ponds have been studied from the point of view of examining some other ways to reduce eutrophy, or over-richness. In addition to these studies, various limnological studies were continued on the lakes, and studies on populations of midge larvae and adults were continued, including distribution in the lakes, populations in regard to depth and bottom type and numbers emerging per unit time to give better knowledge of seasonal relations as well as other possible relations.

Salt-Marsh Wildlife

Under contract with the U. S. Fish and Wildlife Service, a study is under way to determine the usage made by wildlife of salt marshes impounded for mosquito control. The emphasis is on waterfowl and other birds since the possibilities of managing for bird life seem most feasible. The field work consists primarily of censusing birds on paired marshes, one flooded and the other under natural conditions. This is done on marshes which were originally of the grass type, of the mangrove type, and of the intermediate, scrub type. Bird numbers and species are then correlated with measured factors in the environment, such as vegetation, water levels, amount of open water, and so on.

PHYSIOLOGY SECTION

Reproductive Studies

Investigations of autogeny, or ability to develop eggs without a blood meal, in *Aedes taeniorhynchus* continued during 1962. General studies of autogeny achieved the following: determined the rate of autogenous egg development compared to eggs developed on a blood meal; determined to what extent the larval diet and the adult diet influenced the ability of the *taeniorhynchus* female to produce autogenous eggs; and demonstrated that by manipulating the larval and adult diets, a non-autogenous strain of mosquitoes (*Aedes aegypti*) could be developed in a few generations into a strain in which some females could produce eggs without prior blood-feeding.

Detailed studies on the endocrine (hormone) basis for both autogenous and blood-induced reproduction were continued. This required an investigation of hormones controlling the deposition of yolk in developing eggs. To date, most of the work has involved the corpora allata, a pair of glands in the mosquito's neck. By removing these glands and implanting "active" corpora allata from blood-fed donors, they have been shown to produce a hormone which plays a role in egg development.

Growth Studies

In January 1962, studies were begun under a new research grant to Dr. Lum from the NIH to determine the factors which influence the rate of development of mosquito larvae and subsequent adult

characteristics such as size, weight, flight and reproductive potentials. In the preliminary phases of this investigation, the effects of three factors: food, temperature and photoperiod on larval development, are being studied.

Metabolism Studies

Metabolism of the resting female mosquito has been mapped: as it utilizes its energy reserves during starvation following emergence; as it synthesizes reserves from a sugar meal; as it utilizes such newly synthesized reserves upon subsequent starvation. It has been shown that the male synthesizes only glycogen as its energy reserve; whereas, the female makes both glycogen and fat.

FLOYD H. DeCAMP, D.D.S.
Director

Highlights of this year may be listed as the continuation and the growth of the Dental Preceptorship Program which began in 1957, and the increased interest of county health departments (CHDs) and interested citizens in the establishment of full-time dental clinics staffed either by full-time Florida licensed public health dentists or preceptorship dentists. This year, there were 22 full-time preceptorship dentists and seven full-time licensed dentists attached to CHDs. Credit for a part of this growth in the preceptorship program is due directly to the interest and assistance of the director of the Bureau of Maternal and Child Health. Through his efforts, Children's Bureau funds were made available to employ five preceptorship dentists for assignment to small CHDs where local funds for a dental program were not available. Through the same source, one new mobile dental unit was purchased to serve the dental needs of young underprivileged children, and to give emergency dental care for indigent prenatal cases in a tri-county health unit. All other public health dentists and preceptorship dentists and dental assistants are paid for through county funds.

The State Dental Society in 1962, through their cooperation with this bureau, made possible the first broad survey of the dental needs of persons in nursing homes in counties having the greatest population and also, some in lesser populated areas. These surveys were done in all areas by practicing dentists designated by local dental societies.

The director of the Bureau of Special Health Services through his interest in making dental services available to non-ambulatory persons in nursing homes and to chronically ill persons in hospitals, allocated federal funds from the U. S. Public Health Service (USPHS) to purchase two completely equipped portable dental units for this bureau. These units are now available on loan to CHDs in the state to be used by local practicing dentists to assist in making dental care available to non-ambulatory patients confined to their homes, hospitals, or nursing homes. Patients need not be dentally indigent; they may be either private patients or those unable to pay for this service.

Through the director of the Division of Chronic Diseases, and the director of the Heart Disease Control Program, cooperating with this bureau, a new card was designed for persons under treatment by physicians for certain heart ailments. These cards, purse size, are given by the physicians to their heart patients, with instructions to show them to their dentist prior to dental treatment in order that he may be informed of the type of medical treatment being given. The card is retained by the patient. It has been helpful and well received by physicians and dentists.

characteristics such as size, weight, flight and reproductive potentials. In the preliminary phases of this investigation, the effects of three factors: food, temperature and photoperiod on larval development, are being studied.

Metabolism Studies

Metabolism of the resting female mosquito has been mapped: as it utilizes its energy reserves during starvation following emergence; as it synthesizes reserves from a sugar meal; as it utilizes such newly synthesized reserves upon subsequent starvation. It has been shown that the male synthesizes only glycogen as its energy reserve; whereas, the female makes both glycogen and fat.

FLOYD H. DeCAMP, D.D.S.
Director

Highlights of this year may be listed as the continuation and the growth of the Dental Preceptorship Program which began in 1957, and the increased interest of county health departments (CHDs) and interested citizens in the establishment of full-time dental clinics staffed either by full-time Florida licensed public health dentists or preceptorship dentists. This year, there were 22 full-time preceptorship dentists and seven full-time licensed dentists attached to CHDs. Credit for a part of this growth in the preceptorship program is due directly to the interest and assistance of the director of the Bureau of Maternal and Child Health. Through his efforts, Children's Bureau funds were made available to employ five preceptorship dentists for assignment to small CHDs where local funds for a dental program were not available. Through the same source, one new mobile dental unit was purchased to serve the dental needs of young underprivileged children, and to give emergency dental care for indigent prenatal cases in a tri-county health unit. All other public health dentists and preceptorship dentists and dental assistants are paid for through county funds.

The State Dental Society in 1962, through their cooperation with this bureau, made possible the first broad survey of the dental needs of persons in nursing homes in counties having the greatest population and also, some in lesser populated areas. These surveys were done in all areas by practicing dentists designated by local dental societies.

The director of the Bureau of Special Health Services through his interest in making dental services available to non-ambulatory persons in nursing homes and to chronically ill persons in hospitals, allocated federal funds from the U. S. Public Health Service (USPHS) to purchase two completely equipped portable dental units for this bureau. These units are now available on loan to CHDs in the state to be used by local practicing dentists to assist in making dental care available to non-ambulatory patients confined to their homes, hospitals, or nursing homes. Patients need not be dentally indigent; they may be either private patients or those unable to pay for this service.

Through the director of the Division of Chronic Diseases, and the director of the Heart Disease Control Program, cooperating with this bureau, a new card was designed for persons under treatment by physicians for certain heart ailments. These cards, purse size, are given by the physicians to their heart patients, with instructions to show them to their dentist prior to dental treatment in order that he may be informed of the type of medical treatment being given. The card is retained by the patient. It has been helpful and well received by physicians and dentists.

NEW DENTAL CLINICS

This year was most outstanding in the number of new dental clinics being included in county health centers being built or planned through county and Hill-Burton funds. In addition, civic clubs in many Florida towns and cities contributed funds for purchase of needed new dental equipment in several areas to modernize existing CHD dental clinics.

Sarasota CHD, through the interest and support of the Junior Woman's Club, was the beneficiary of a gift of approximately \$8000 by the Selby Foundation to equip a completely modern new dental clinic in the Sarasota Memorial Hospital. Funds for payment of the dentist and dental assistant were made available by Sarasota County.

MOBILE DENTAL CLINICS

This bureau maintains two mobile dental clinics to serve underprivileged elementary school children in areas having few or no practicing dentists. Both clinics are fully equipped with modern equipment and are routinely staffed by preceptorship dentists. These dentists are supervised by this bureau and the preceptorship committees in the counties or districts to which the clinics are assigned.

During 1962, one clinic operated four months and the other 11 months. A summary of the services given follows:

School dental inspections	1114
New patients	1563
Repeat patients	1830
Fillings (all types)	3076
Extractions	1343
Miscellaneous treatments	70
Talks given to school and civic groups	10
Approximate audience	558
Pamphlets distributed	455

FLUORIDATION

In June 1962, Leesburg became the 23rd Florida city using a water system containing controlled fluoridation. Other cities fluoridating water supplies are Gainesville, Clewiston, Naples, Cocoa, Orlando, Ocala, Ormond Beach, Belle Glade and Miami. Both Belle Glade and Miami furnish fluoridated water to suburban cities totaling 13 in number. Late in 1962, the United States Navy which supplies water to Key West and other cities in Monroe County, added fluoride to the water supply.

Approximately 733,900 people are served in these cities with controlled fluoridation. In addition, 27 other communities having a combined population of 334,600 are served by water systems having approximately the correct amount of fluoride as a natural component. These include Jacksonville and Sarasota. In all, about 1,068,500 are using water containing fluoride at near optimal level.

During the year, the bureau received many requests for fluorida-

tion information from citizens, civic groups, county and city officials, dentists and teachers. Members of the bureau staff assisted in two fluoridation referenda. These referenda held in Quincy and Tampa were defeated. However, a favorable court decision was received in regard to the fluoridation of the water supply of Fort Pierce where the results of previous favorable referendum was contested in the courts. One other city with city council approval neared completion of plans to fluoridate its water supply in 1962.

DENTAL PRECEPTORSHIP PROGRAM

Established in 1957 for the purpose of enabling CHDs to staff their dental clinics, this program has served an increased number of counties each year. Most preceptorship dentists elect to go into private practice in Florida upon obtaining licensure, and after their tour of duty is completed. Many excellent young dentists are brought to the state in this manner.

Preceptorship dentists are supervised by a local committee of licensed dentists, an advisor from this bureau and the directors of the CHDs in their respective areas.

A five-day postgraduate course was given for this group. It was sponsored and arranged by this bureau and was held at the State Board of Health (SBH). In addition to dental public health, the course was designed to emphasize many of the scientific and technical aspects of dental practice. The many functions, facilities and services of the SBH were emphasized.

During 1962, 20 counties were served by preceptorship dental programs, for all or a portion of the year. These were Alachua, Broward, Dade, Duval, Flagler, Glades, Hendry, Highlands, Hillsborough, Lake, Manatee, Marion, Orange, Palm Beach, Polk, Putnam, Sarasota, St. Johns, Santa Rosa and Volusia. There were six counties which were served by a licensed public health dentist during all or a portion of the year. These were Dade, Pinellas, Orange, Marion, Palm Beach and Polk.

Of the many applications submitted for preceptorship positions, 14 were approved by the State Board of Dental Examiners. Of these, 11 were placed in CHDs and one in this bureau. The remaining two accepted positions in other states.

Preceptorship contracts are for one-year periods but may be extended an additional year when circumstances warrant.

DENTAL SCHOLARSHIP PROGRAM

A scholarship recipient may receive up to \$1000 a year for as many as four years. After graduation, his obligation to the state is routinely repaid by practicing in an "area of need" (where there are

few or no dentists), for 12 months for each \$1000 received. This is in keeping with the Dental Scholarship Law as amended by the 1961 Legislature. A total of 82 scholarships have been awarded, with one cancellation before becoming effective.

Disposition of the 40 graduates to date is:

Placed and serving in "areas of need"	23
Refused placement: repaying scholarship	3
Refused placement: repaid scholarship in full	6
Discontinued compensatory practice:	
repaying amount due	1
Compensatory practice completed	1
Unable to qualify for Florida licensure	1
Currently serving one-year internship	1
Currently serving in Armed Forces	4

40

CARE FOR THE AGED

During 1962, the bureau continued its cooperation with the State Dental Society's Committee on Dental Care for the Aged. The results of surveys done in selected nursing homes for the aged were tabulated. Designed to determine the dental needs of nursing home residents, they were completed by the local dental societies in eight counties: Indian River, Lee, Volusia, St. Lucie, Polk, Palm Beach, Orange and Marion.

Tabulated results indicate that 731 patients in 26 homes were given dental examinations. The average age of patients examined was 72 years. Approximately 60 per cent were edentulous. About 44 per cent were non-ambulatory and nearly 50 per cent were deemed in need of dental treatment. Much additional information regarding the details of the dental needs of aged residents of nursing homes was revealed and is now available for use by the State Dental Society and others who may wish to plan a dental care program for underprivileged elderly citizens of the state.

MISCELLANEOUS

In 1962, efforts to improve dental health education were concentrated on a program involving teachers, parents and school children. The work of a health educator and a full-time dental hygienist was coordinated with that of school personnel, CHD staffs and civic groups.

Both the hygienist and health educator assisted in planning with school officials and civic groups for visits by the white and Negro mobile dental clinics. As a result, the mobile clinic program operated with increased benefit in the areas served.

The health educator participated in the Teachers Project. . . . During the year, visits were made to the health classes being conducted in the universities, colleges and junior colleges of the state. . . . The preceptorship dentists were assisted by both the health educator and dental hygienist in planning the health education aspects of their programs and in securing health education material for use in the counties. In several counties, decayed-missing-filled surveys were done by the dental hygienist to promote health education activities and to provide information for use in support of fluoridation programs. The health educator also worked actively in these fluoridation programs.

Operated jointly with the Bureau of Laboratories, the lactobacilli laboratory service phase of the dental program has continued to expand in volume since its inception in 1955. During 1962, a total of 4495 saliva specimens were submitted for analysis, an increase of more than 800 over the previous year.

The staff of the Division of Radiological and Occupational Health reported to this bureau in December 1962 that approximately 80 per cent of the dental X-ray machines in Florida had been surveyed.

BUREAU OF FINANCE AND ACCOUNTS

FRED B. RAGLAND, B.S.
Director

PAUL R. TIDWELL, B.B.A.
Assistant Director

Major responsibility rests with the bureau for the business and financial management of the agency, and includes: accounting, budgeting, purchasing, property control, duplicating services, mail, shipping, receiving, automobile control and assignment and buildings and grounds maintenance. The business and financial management requires a close working relationship with the State Board of Health (SBH) program directors in planning maximum utilization of funds that have been provided. This means sound budget preparation of the various health programs designed to cover a future period of time. Once the funds are provided and properly budgeted, then a logical system of accounting for these funds and issuance of reports concerning their expenditure is necessary. This, along with the dissemination of proper budget control information, is accomplished by this bureau. Sometimes this becomes quite involved due to the complexity of the various sources of funds: federal, state, county, private, etc. Each of these sources bears its own set of rules, laws and regulations as to the administration of expenditure of the funds.

The fiscal year ended June 30, 1962, was the first year of the 1961-63 state biennium for which the 1961 Legislature made available to the agency state funds through the General Appropriation Act. These appropriations were generally based upon maintaining present programs at the same level with no additional funds for new programs or for expansion.

Overall, approximately \$21,000,000 was spent during the fiscal year ended June 30, 1962. This represented about two and a quarter million dollars more than was spent the previous fiscal year. In two instances there was a notable increase. The Hospital Service for the Indigent program increased about \$650,000 to almost five million dollars for 1962 as a result of the state's greater use of federal financial participation for those on public assistance rolls. The basic expenditures through county health departments (CHDs) increased about \$850,000 approaching a total of almost nine million dollars for 1962, due primarily to more funds from local sources. Gradual increases were experienced in the state's general public health programs such as chronic diseases, preventable diseases and public health laboratory support.

A new federal categorical fund became available: Chronic Illness and Care of the Aged. Also increased funds from the U.S. Public Health Service (USPHS) for Cuban Health Services were received

to meet the responsibility of increased numbers of Cubans coming into the Miami area.

At the close of the fiscal year June 30, 1962, the number of state-owned and operated automobiles was 81. These were driven approximately 1,300,000 miles during the year. In addition, the agency owned 39 trucks or special purpose vehicles such as: mobile tuberculosis, dental and engineering laboratories. These units traveled approximately 275,000 miles during the year. Assignment and use of all vehicles is continually reviewed to insure that they are used in the most effective and economical manner in carrying out the agency travel responsibilities. During 1962, old vehicles were traded and 27 new units acquired.

The bureau director and his staff continue to give assistance to the overall planning of the health department activities, particularly in the area of coordinating financial plans. The director serves as a member of the agency Budget Committee and continued emphasis has been placed upon keeping bureau and division directors advised as to budgeted programs, and expenditures from such budgets, progressively, during the year.

PURCHASING AND PROPERTY

The purchasing section carries out the responsibility of the agency's need for supplies, equipment and services. Purchases made are subject to rules and regulations issued by the State Purchasing Commission, such as obtaining bids and quotations, advertising for bids under certain conditions, printing regulations, etc. The property division of this section carries out the responsibility of recording, marking and inventorying all property purchased (desks, chairs, typewriters, adding machines, scientific equipment, automobiles, office supplies, etc.). The Florida Statutes prescribe certain records which must be maintained and the frequency of physical inventories.

The bureaus and divisions of the agency referred approximately 3000 purchase requisitions to the office of the purchasing agent for equipment, supplies and services for the year 1962. In processing these requisitions, the purchasing office issued 3898 separate purchase orders to the various vendors and suppliers and the total amount of these combined purchase orders was approximately \$1,250,000. CHDs normally handle purchases locally within the organizational framework of the CHD; however, their purchasing procedures must conform to the Florida Statutes governing purchases, such as obtaining bids and advertising for bids where required. The following of good business practices in procuring materials through competitive bids is advocated. The purchasing agent at the SBH assists the CHDs wherever possible with their purchasing requirements.

PROPERTY CONTROL

Control of property and maintenance of records as required by Florida Statute continues to be a job of considerable magnitude. The

category of furniture and equipment alone involves over 8700 single items in 157 different accountability locations. There was continued IBM machine accounting to obtain the required listings of property items. Copies of these listings are distributed to the person responsible for each accountable location. Copies are also utilized in the taking of annual physical inventories and in substantiating insurance valuations.

Property valuations as reflected by the SBH Plant Ledger as of June 30, 1962 were as follows:

Real property	\$2,678,188
Furniture and equipment	926,390
Automotive equipment and trailers	242,789
Books and film	235,912
TOTAL.....	\$4,083,279

The importance of correct maintenance and control of property is continually stressed within the agency.

INSURANCE

Fire insurance on buildings and contents is carried in the State Fire Insurance Fund under the supervision of the State Fire Insurance Commissioner. Coverage is carried on 18 state-owned buildings under the jurisdiction of the SBH located throughout the state. Coverage is provided for the contents located in these 18 buildings plus contents located in 14 other buildings throughout the state. The SBH either leases or rents space in these 14 locations from private building owners, or occupies space in state-owned buildings through special arrangement with other state agencies.

Under a special cargo floater policy, coverage in effect with a commercial company amounted to a dollar total of \$98,944 for contents located in 15 separate mobile units at the end of 1962.

Coverage on boilers and heating equipment is carried in a master policy supervised by the office of the State Fire Insurance Commissioner. Other major insurance coverages purchased through regular agents of commercial companies are: money and securities, broad form, loss inside and outside of premises; position schedule bond for narcotic inspectors; public employees honesty blanket position bond; fleet state automobile coverage, bodily injury, property damage, comprehensive and medical benefits (no collision coverage since the Board acts as self-insurer); Workmen's Compensation. The Commissioner's office was furnished with itemized inventory listings, including dollar values for all property, by location, and this will be routine procedure in the future. Also recently instituted is the practice of a "reporting form" procedure for locations having large quantities of expendable (fluctuating) supplies.

Beginning with fiscal year 1961-62, the agency changed its Workmen's Compensation coverage to a retrospective rating plan. The first year of experience under this plan resulted in a considerable savings to the state in premiums paid. With a continuing favorable loss experience this savings should continue annually.

Nine claims amounting to \$969 were settled under the agency's fleet automobile liability policy during 1962. Damages to SBH cars caused by others were settled for \$683. This agency's insurance company repaired damages to SBH automobiles under comprehensive clause, \$204 and theft, \$189. The SBH in its role as self-insurer for damages caused by collision, paid \$653 for repairs in this respect. This figure is considerably less than the cost of carrying the collision coverage in a fleet liability policy.

BUILDINGS AND GROUNDS

The responsibility for maintenance of buildings and grounds becomes increasingly important with the growth of the agency. The superintendent of building and grounds, and his staff, is capable of performing the general maintenance needs of the agency. During 1962, continued emphasis was placed upon the proper maintenance and improvement of the mechanical, laboratory and electrical equipment within the plant. Also, continued improvement of the grounds was consummated. Records of all the agency automobiles and repairs to the Jacksonville area automobiles have been closely supervised during the year. Trips have been made to regional laboratories for the purpose of giving building modification advice. Some of the major accomplishments included: (1) complete electrical circuitry modernization of the Julia Street building; (2) installation of modern sound-proof ceilings in the Julia Street building in conjunction with updating the airconditioning system; (3) alteration of office spaces within the Porter, Pearl and Julia Street buildings; (4) removal of complete ceiling, installation of a new lay-in type ceiling, installation of adequate lighting fixtures, recaulking of drains and the installation of additional drains was accomplished in the central laboratory; (5) one engineering and two dental health trailers were completely rewired and additional equipment was installed; (6) a new building for the housing of monkeys was constructed; (7) major alterations to the Hanson building penthouse mouse breeding room consisted of an installation of a package airconditioning humidity control unit with ducting, new steel cage racks and a ventilating system; (8) reroofing of the Pearl and the annex portion of the Julia Street buildings; (9) installation of additional electrical circuits in the Hanson-Porter buildings in order to handle the ever-increasing electrical loads; (10) an intensive updating of equipment in an endeavor to obtain maximum safety; (11) installation of a larger capacity water softening system. A total of 778 work requisitions, requiring one or more man hours, were processed by the maintenance department during the year. A

preventive maintenance system has been devised which is being instituted when and as the work load permits. Additional per diem employees have been hired temporarily at various times because of the workload created by the growth of the agency. Additional personnel will be required to adequately supply all mechanical, shipping, mail and housekeeping needs.

A security force consisting of four uniformed men, directly responsible to the superintendent of building and grounds, is on duty at all times during non-working hours. The officers are responsible for routine check on all equipment, entrances, vehicles left on agency property, reception of laboratory specimens, and the logging in on a comprehensive legal form of all items which might later require court room appearance. Appearance at court proceedings and general protection of all property and equipment is required of security personnel.

SHIPPING AND RECEIVING

This section is directly responsible to the superintendent of building and grounds. The bulk of shipping continues to include drugs, supplies and forms to CHDs, and containers and laboratory supplies to regional laboratories and state tuberculosis hospitals. Another function (now divided with the mail section) is to receive all incoming shipments and to complete receiving reports for such shipments. The section also aids the central laboratory in the preparation of laboratory mailing containers. Civil defense activity has placed an additional requirement upon this section. The mail continues to become heavier and a larger area needs to be provided for adequate mail handling.

DUPLICATING

The Duplicating Department continues to operate efficiently and economically, being a valuable asset to the organization. No new equipment was added during the year. The section continues to record job numbers, total runs, number of forms reproduced and costs.

During the year each job requested of the department was by separate written requisition. There were 1818 requisitions for mimeograph, multilith or multigraph services. These jobs required 6011 separate forms when reproduced; the total impressions were 10,455,674. This is a noteworthy accomplishment, in view of limited staffing. In addition, the bindery section of the department handled paper cutting, padding, holes drilled, pamphlets stitched, folding, perforating and collating.

Ditto Room

The addressograph files increased during the year to approximately 50,000 plates. The *Florida Health Notes* file, totaling over 18,000 plates, is continually reviewed and kept up-to-date. The ad-

dressograph operator assists and gives advice to any workers using the ditto machine. Again, space is becoming limited and the workload is increasing rapidly.

FISCAL SECTION

The essential function of this section is the determination of the legality and propriety of payments under the various programs of the agency, processing all bills and vouchers for payment, the financial record keeping and preparation of required financial reports.

The financial transactions of the SBH for the fiscal year ended June 30, 1962, as reflected by the records of the bureau, are presented in a condensed form at the end of this section. A detailed financial report for the fiscal year ended June 30, 1962, has been prepared and distributed to the Governor, members of the Board of Health, and all bureaus, divisions and CHDs.

The funds received (or appropriated) for the fiscal year ended June 30, 1962, were from the following sources:

State appropriations and funds	\$ 8,443,643.00	39%
From local agencies for county health departments	6,310,148.13	29%
From federal grants-in-aid	2,342,384.15	11%
From research grants	539,129.10	2%
From Hospital Services for the Indigent:		
*Local sources	298,008.59	1%
State Department of Public Welfare	3,731,999.32	17%
From federal and state for building	140,047.06	1%
	<hr/>	
	\$21,805,359.35	100%

*These funds deposited with and disbursed through the State Treasury. Does not include \$2,938,456 disbursed locally.

The operating and capital expenditures by the State Board of Health were for:

Personal services (salaries and professional fees)	\$10,366,207.84	49%
Contractual services (repairs, utilities, travel expenses, hospital program)	7,252,007.58	34%
Materials and supplies (office, medical, laboratory, mosquito control, educational)	1,209,834.97	6%
Current charges (rents, insurance, merit system costs, registrar fees)	335,541.95	2%
Capital outlays (equipment and fixed assets)	440,079.32	2%
Grants to counties and Mosquito Control Districts	1,266,720.42	6%
Miscellaneous (education aids and subsidies)	146,294.36	1%
TOTAL	\$21,016,686.44	100%

In addition to funds reported in the annual financial report and summarized above, certain other funds and services were made available by the USPHS to the activities of the Board but were not paid directly to the SBH. They include:

Value of USPHS personnel on loan to the Board in preventable disease programs.....\$ 145,183.64

Fiscal operation followed a budget plan of 156 departmental budgets. These budgets were periodically revised as required.

SUMMARY OF RECEIPTS AND DISBURSEMENTS AND BALANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1962

RECEIPTS

FROM STATE FUNDS

From State Appropriations—Operations:

General Public Health.....	\$ 3,693,744.00
Consolidated Mosquito Control	1,650,000.00
County Health Units.....	1,660,000.00
Medical Students Scholarships.....	40,000.00
Dental Students Scholarships.....	40,000.00
Hospital Service for Indigents.....	1,025,000.00
Mental Health Council	140,181.00
Air Pollution	69,718.00
Purchase of Salk and Combined Vaccines.....	125,000.00
Total State Appropriations.....	\$ 8,443,643.00

FROM FEDERAL GRANTS-IN-AID

Public Health Service:

General Health	\$ 416,975.00
Chronic Illness and Care of Aged.....	168,900.00
Venereal Disease	101,246.00
Tuberculosis Control	82,739.00
Heart Disease	124,734.00
Cancer Control	83,813.63
Mental Health	163,582.00
Water Pollution	107,200.00
Cuban Health Services.....	318,663.52

Children's Bureau:

Maternal and Child Health.....	\$ 774,531.00
--------------------------------	---------------

Total Federal Grants-In-Aid \$ 2,342,384.15

FROM GRANTS AND DONATIONS.....\$ 539,129.10

FROM LOCAL AGENCIES FOR COUNTY
HEALTH UNITS.....\$ 6,310,148.13

FROM HOSPITAL SERVICE FOR INDIGENTS

Local Sources	\$ 298,008.59
State Welfare Board.....	3,731,999.32

Total from Hospital Service for Indigents..... \$ 4,030,007.91

FROM FEDERAL AND STATE FOR BUILDINGS.....\$ 140,047.06

Total Receipts \$21,805,359.35

Balance July 1, 1961, \$3,020,356.57 (Less expires
appropriations of \$327,680.49).....\$ 2,692,676.08

TOTAL RECEIPTS AND BALANCES..... \$24,498,035.43

246 ANNUAL REPORT, 1962

DISBURSEMENTS

OPERATING EXPENSES

Personal Services:	
Salaries	\$10,081,044.22
Other personal services—individual.....	130,741.73
Other personal services—other.....	154,421.89
Contractual Services:	
Travel expense, including subsistence and lodging	1,190,984.58
Communication and transportation of things.....	280,080.52
Utilities	130,169.99
Repairs and maintenance.....	94,787.64
General printing and reproduction service.....	70,898.27
Subsistence and support of persons.....	5,121,284.28
Other contractual services.....	363,802.30
Commodities:	
Bedding, clothing and other textile products.....	3,229.01
Building and construction materials and supplies.....	11,420.62
Coal, fuel oil and other heating supplies.....	9,402.73
Educational, medical, scientific and agricultural materials and supplies.....	893,748.23
Maintenance materials and supplies.....	79,500.23
Motor fuel and lubricants.....	48,539.01
Office materials and supplies.....	156,137.51
Other materials and supplies.....	7,857.63
Current Charges:	
Insurance and surety bonds.....	82,396.54
Rental and buildings.....	100,016.57
Rental of equipment.....	33,890.69
Other current charges and obligations.....	60,585.70
Merit System	58,652.45
TOTAL OPERATING EXPENSES.....	\$19,163,592.34

CAPITAL EXPENSES

Books	8,988.67
Buildings and fixed equipment.....	118,032.27
Educational, medical, scientific and agricultural equipment	138,632.47
Motor vehicles—passenger	55,310.00
Motor vehicles—other	2,688.42
Office furniture and equipment.....	109,975.96
Other structures and improvements.....	1,771.49
Other capital outlay.....	4,680.04
TOTAL CAPITAL EXPENSE.....	\$ 440,079.32

GRANTS, SUBSIDIES AND CONTRIBUTIONS

Grants to counties and Mosquito Control Districts	\$ 1,266,720.42
Other educational aids and subsidies.....	146,294.36
Total grants, subsidies and contributions.....	\$ 1,413,014.78
TOTAL PROGRAM EXPENSES.....	\$21,016,686.44

FINANCE AND ACCOUNTS 247

NON-OPERATING DISBURSEMENTS

Transfers	\$ 176,985.39
Refunds	2,514.09
Total non-operating disbursements.....	\$ 179,499.48
Total disbursements	\$21,196,185.92
Balance June 30, 1962.....	\$ 3,301,849.51
TOTAL DISBURSEMENTS AND BALANCES.....	\$24,498,035.43

SCHEDULE OF EXPENSES
BY PUBLIC HEALTH PROGRAM ACTIVITY

Health Services to Mothers, Infants, Preschool and School Children	\$ 3,719,900.00
Statewide Venereal Disease Control, Diagnosis and Referral of Infectious Venereal Disease Patients to Treatment Clinics —also Operation of Program.....	1,025,300.00
Mosquito and Pest Control Programs, Including Pest Control Law Enforcement	3,008,205.82
Indigent Hospitalization	4,960,576.29
Statewide Sanitary Engineering and Environment Sanitation.....	1,800,205.28
Statewide Cancer Control Program.....	568,400.00
Statewide Tuberculosis Control, X-Ray Survey and Follow-up Work	1,007,000.00
Mental Health Program.....	1,254,600.00
Statewide Narcotic, Drug, Medical Practice Law Enforcement....	158,863.94
Radiological and Occupational Health (including Air Pollution)	133,293.42
Chronic Illness and Care of the Aged.....	1,116,100.00
Heart Disease Program.....	301,700.00
Other Health Programs and Administration.....	1,962,541.69
TOTAL EXPENSES	\$21,016,686.44

SCHEDULE OF EXPENSES
BY FUNCTIONAL ACTIVITY

General Public Health (also includes Miscellaneous Health Activities and Training).....	\$ 1,499,002.90
Vital Statistics	244,630.59
Health Education	93,396.21
Sanitary Engineering	469,979.58
Entomology and Mosquito Control.....	2,121,388.69
Laboratories	718,298.03
Tuberculosis Control	166,811.55
Preventable Diseases (excluding Tuberculosis Control)	449,120.87
Mental Health	284,781.32
Narcotics	126,635.84
Maternal and Child Health.....	359,636.68
Hospital Service for the Indigent.....	4,960,576.29
Local Health Service.....	353,279.07
Chronic Diseases	300,977.48
County Health Units.....	8,868,171.34
TOTAL EXPENSES	\$21,016,686.44

TABLE 59
FUNDS RECEIVED BY COUNTY HEALTH UNITS FROM STATE BOARD OF HEALTH AND
LOCAL SOURCES FOR THE FISCAL YEAR ENDED JUNE 30, 1962

	STATE BOARD OF HEALTH		LOCAL FUNDS			
	Funds Total	Total	State	Federal	Total	Board of County Commissioners
Alachua	\$ 191,187	\$ 54,504	\$ 52,040	\$ 2,464	\$ 136,683	\$ 105,782
Baker	20,176	8,182	8,182		11,994	11,993
Bay	94,571	46,150	27,920	18,230	48,421	47,093
Bradford	33,168	13,288	13,288		19,880	14,356
Brevard	188,696	44,116	44,116		144,580	135,132
Broward	409,632	104,300	75,398	28,902	305,332	283,332
Calhoun	19,186	8,682	8,682		10,454	9,500
Charlotte	46,268	14,124	14,124		32,144	29,665
Citrus	29,139	16,601	16,601		23,468	8,873
Clay	43,057	19,589	19,589		36,425	20,937
Clay Building Fund	60,286	23,861	23,861		21,931	10,364
Collier	41,980	20,049	20,049		13,034	34,224
Columbia	1,323,797	245,314	137,371	107,943	1,078,483	21,669
Dade	29,437	16,403	16,403		7,600	978,282
DeSoto	13,890	6,290	6,290		15,664	12,845
Duval	251,672	119,742	114,080	5,662	131,930	5,547
Escambia	300,447	83,147	67,483	15,664	217,300	97,753
Flagler	24,374	5,341	5,341		15,449	115,449
Franklin	29,149	13,452	13,452		19,033	19,002
Gadsden	73,928	31,506	31,506		15,697	15,633
Gilchrist	11,796	4,355	4,355		42,422	36,156
Glades	14,822	4,750	4,750		7,441	4,258
Gulf	32,198	14,624	14,624		10,072	3,650
Hamilton	21,905	9,013	9,013		17,574	3,780
Hardee	36,143	13,915	13,915		12,852	14,477
Hardee Building Fund	917	9,498	9,498		22,228	11,534
Hendry	37,890	8,550	8,550		917	517
Hernando	13,982	8,550	8,550		28,392	12,722
Highlands	42,573	24,359	24,359		5,432	3,519
Highlands Building Fund	18,154				18,214	18,000
Hillsborough	\$ 998,950	\$ 160,723	\$ 67,901	\$ 92,822	\$ 838,227	\$ 624,616
Indian River	27,033	12,987	12,987		14,046	7,000
Jackson	61,041	25,407	25,407		35,634	24,917
Jackson River	38,937	11,163	11,163	7,800	32,425	3,000
Jefferson	28,193				17,030	4,000
TOTALS	\$ 8,855,406	\$ 2,545,260	\$ 2,148,071	\$ 397,189	\$ 6,310,146	\$ 5,109,170
						\$ 233,636
						\$ 154,733
						\$ 812,607

TABLE 59 (Continued)
FUNDS RECEIVED BY COUNTY HEALTH UNITS FROM STATE BOARD OF HEALTH AND
LOCAL SOURCES FOR THE FISCAL YEAR ENDED JUNE 30, 1962

	STATE BOARD OF HEALTH		LOCAL FUNDS			
	Funds Total	Total	State	Federal	Total	Board of County Commissioners
Lafayette	13,889	5,880	5,880		8,009	8,000
Lake	97,184	32,900	32,900		64,284	61,685
Lee	87,809	36,014	36,014		51,795	48,691
Leon	182,023	82,051	71,409	10,642	99,972	75,844
Levy	28,701	12,038	12,038		16,663	10,772
Liberty	12,858	3,671	3,671		9,187	9,179
Madison	30,465	15,584	15,584		14,881	14,783
Manatee	147,204	51,726	51,726		95,478	85,968
Marion	80,684	34,766	34,766		45,918	35,856
Martin	36,781	17,276	17,276		19,505	18,056
Monroe	96,462	38,373	33,333	5,040	58,089	42,004
Nassau	61,253	20,104	20,104		41,449	41,023
Okaloosa	69,627	32,693	32,693		36,934	29,231
Okeechobee	20,677	7,915	7,915		12,762	12,702
Orange	412,491	103,646	86,215	17,431	308,845	233,738
Osceola	39,335	20,146	20,146		19,189	16,650
Palm Beach	478,866	107,113	96,398	10,715	371,753	248,931
Pasco	32,815	16,950	16,950		31,565	13,600
Pinellas	847,828	130,182	89,721	40,461	717,846	584,356
Polk	369,703	92,276	72,709	19,567	277,827	227,368
Putnam	72,570	23,494	23,494		49,076	47,702
Santa Rosa	46,277	21,704	21,704		24,573	15,918
Sarasota	194,098	60,100	50,416	9,684	133,998	109,959
Seminole	68,976	25,493	25,493		43,483	21,486
St. Johns	64,462	27,503	27,503		36,959	24,317
St. Lucie	79,453	39,950	39,478		39,503	29,508
Sumter	23,573	12,636	12,636	472	10,937	10,361
Suwannee	31,301	16,316	16,316		14,985	14,783
Taylor	25,693	12,023	12,023		13,670	800
Union	14,378	8,069	8,069		6,309	6,279
Volusia	279,661	90,881	87,191	3,690	188,780	146,758
Wakulla	14,158	6,150	6,150		8,008	8,000
Walton	38,270	16,916	16,916		21,354	11,846
Washington	27,635	12,866	12,866		14,769	14,699
County Health Units						
State at Large	76,933	76,933	76,933			
TOTALS	\$ 8,855,406	\$ 2,545,260	\$ 2,148,071	\$ 397,189	\$ 6,310,146	\$ 5,109,170
						\$ 233,636
						\$ 154,733
						\$ 812,607

ARTICLES, BOOKS AND MONOGRAPHS BY STATE BOARD OF HEALTH STAFF MEMBERS, 1962

GENERAL ADMINISTRATION

- Andersen, B. B. Jr. Legal liability of nursing homes. *Nursing Homes*, 11:1-3, Jan. 1962.
- Andersen, B. B. Jr. Legal liability of nursing homes. Pt. III, *Nursing Home Notes* (Georgia State Dept. of Public Health), Vol. 5, Jan.-Mar. 1962.
- Hardy, A. V. Home nursing care in Florida. *Bulletin Duval County Medical Society*, 13:9-11, Aug. 1962.
- Hardy, A. V. Research—or stay behind. *Amer. J. Public Health*, 52:1-7, Jan. 1962.
- Reed, Elizabeth. Health education—a part of and apart from public health nursing. *Nursing Outlook*, 10:409, June 1962.
- Williams, C. J. Yes, it's different. *Practical Nursing*, 12:17 passim. Jan. 1962.

BUREAU OF ENTOMOLOGY

- Beck, E. C. Five new *Chironomidae* (Diptera) from Florida. *Fla. Ent.* 45:89-92, June 1962.
- Nielsen, E. T. Contributions to the Ethology of *Glyptotendipes paripes* Edwards. *Oikos*, 13 (1):48-75, 1962.
- Nielsen, E. T. A note on the control of the chironomid *Glyptotendipes paripes* Edwards. *Mosquito News*, 22 (2):114-115, 1962.
- Nielsen, H. T. and E. T. Swarming of mosquitoes: Laboratory experiments under controlled conditions. *Ent. Exp. & Appl.* 5:14-32, 1962.
- Rogers, A. J. Effects of impounding and filling on the production of sand flies (*Culicoides*) in Florida salt marshes. *Journ. Econ. Ent.* 55(4):521-527, 1962.
- Van Handel, E. Coronary thrombosis and insect bites. *Lancet*, 2:886-887, Oct. 27, 1962.
- Yount, J. L. "South Atlantic States," in *Limnology in North America*, ed. by D. G. Frey, Madison: Univ. of Wisconsin Press, 1962.

BUREAU OF LABORATORIES

- Hartwig, E. C., Cacciatore, R., Dunbar, F. P. M. Fortuitum: its identification, incidence, and significance in Florida. *Amer. Rev. Resp. Dis.* 85:84-91, Jan. 1962.
- Hoffert, W. R., Schneider, N. J., Sigel, M. M., Clayton, L. B., Erickson, G. M., Flipse, M. E., Cato, T. E., Hardy, A. V., Serological aspects of live polio vaccine evaluation in Dade County, Florida. *Amer. J. Public Health*, 52:961-969, June 1962.

- Venters, H. D., and Jennings, W. L. Rabies in a flying squirrel. *Pub. Health Rep.* 77:200, Mar. 1962.

BUREAU OF LOCAL HEALTH SERVICES

- Ehlers, F. M., and Law, J. H. Florida's changing population and public health programs. *Nursing Outlook*, 10:788-790, Dec. 1962.
- Reading, Sadie. The Blue and the Gray. *Nursing Outlook*, 10:664-665, Oct. 1962.

BUREAU OF MENTAL HEALTH

- Crawford, A. L. Communications and nursing. *Nursing Survey*, 1:27-30 passim. Oct. 1962.
- Crawford, A. L. The Joint Commission Report on mental illness and health: implications for nursing administration. *Amer. J. Psychiat.* 119:550-554, Dec. 1962.
- Dreger, R. M. *Fundamentals of personality*. Philadelphia: Lippincott, 1962.
- Dreger, R. M. and Dreger, C. M., eds. *Behavioral classification Project Report No. 1; Report of Technical Assistance Project*. Jacksonville, Florida: Jacksonville University, 1962.
- Northcutt, T. J. Jr. "Treatment outcome; a follow-up study," in *Selected Papers given at the 12th Annual Conference of North American Association of Alcoholic Programs*. Chicago: NAAAP, 1962.
- Yeager, W., Sowder, W. T., Hardy, A. V. The mental health worker: a new public health professional. *Amer. J. Public Health*, 52:1625-1630, Oct. 1962.

BUREAU OF SANITARY ENGINEERING

- Baker, R. H. Jr. "Florida future water requirements—waste waters," in *Proceedings of twenty-second annual meeting, Soil and Crop Science Society of Florida*, Nov. 1962.
- Baker, R. H. Jr. Package aeration plants in Florida. *Journal of the Sanitary Engineering Division, Proceedings of the American Society of Civil Engineers*, Vol. 88, No. SA6, Nov. 1962.
- Cross, F. L., Jr., and Lee, D. B. New incinerator standards. *Fla. Architect* 9: 6 passim. April 1962.
- Cross, F. L., Jr., Doughty, L. C. and Lee, D. B. Why hasn't Florida established emission standards for commercial incinerators? *Journal Air Pollution Control Asso.* Sept. 1962.
- Patton, V. D. Plating waste disposal. *Plating*, 49:164-167, Feb. 1962.

ARTICLES, BOOKS AND MONOGRAPHS BY STATE BOARD OF HEALTH STAFF MEMBERS, 1962

GENERAL ADMINISTRATION

- Andersen, B. B. Jr. Legal liability of nursing homes. *Nursing Homes*, 11:1-3, Jan. 1962.
- Andersen, B. B. Jr. Legal liability of nursing homes. Pt. III, *Nursing Home Notes* (Georgia State Dept. of Public Health), Vol. 5, Jan.-Mar. 1962.
- Hardy, A. V. Home nursing care in Florida. *Bulletin Duval County Medical Society*, 13:9-11, Aug. 1962.
- Hardy, A. V. Research—or stay behind. *Amer. J. Public Health*, 52:1-7, Jan. 1962.
- Reed, Elizabeth. Health education—a part of and apart from public health nursing. *Nursing Outlook*, 10:409, June 1962.
- Williams, C. J. Yes, it's different. *Practical Nursing*, 12:17 passim, Jan. 1962.

BUREAU OF ENTOMOLOGY

- Beck, E. C. Five new *Chironomidae* (Diptera) from Florida. *Fla. Ent.* 45:89-92, June 1962.
- Nielsen, E. T. Contributions to the Ethology of *Glyptotendipes paripes* Edwards. *Oikos*, 13 (1):48-75, 1962.
- Nielsen, E. T. A note on the control of the chironomid *Glyptotendipes paripes* Edwards. *Mosquito News*, 22 (2):114-115, 1962.
- Nielsen, H. T. and E. T. Swarming of mosquitoes: Laboratory experiments under controlled conditions. *Ent. Exp. & Appl.* 5:14-32, 1962.
- Rogers, A. J. Effects of impounding and filling on the production of sand flies (*Culicoides*) in Florida salt marshes. *Journ. Econ. Ent.* 55(4):521-527, 1962.
- Van Handel, E. Coronary thrombosis and insect bites. *Lancet*, 2:886-887, Oct. 27, 1962.
- Yount, J. L. "South Atlantic States," in *Limnology in North America*, ed. by D. G. Frey, Madison: Univ. of Wisconsin Press, 1962.

BUREAU OF LABORATORIES

- Hartwig, E. C., Cacciatore, R., Dunbar, F. P. M. Fortuitum: its identification, incidence, and significance in Florida. *Amer. Rev. Resp. Dis.* 85:84-91, Jan. 1962.
- Hoffert, W. R., Schneider, N. J., Sigel, M. M., Clayton, L. B., Erickson, G. M., Flipse, M. E., Cato, T. E., Hardy, A. V., Serological aspects of live polio vaccine evaluation in Dade County, Florida. *Amer. J. Public Health*, 52:961-969, June 1962.

- Venters, H. D., and Jennings, W. L. Rabies in a flying squirrel. *Pub. Health Rep.* 77:200, Mar. 1962.

BUREAU OF LOCAL HEALTH SERVICES

- Ehlers, F. M., and Law, J. H. Florida's changing population and public health programs. *Nursing Outlook*, 10:788-790, Dec. 1962.
- Reading, Sadie. The Blue and the Gray. *Nursing Outlook*, 10:664-665, Oct. 1962.

BUREAU OF MENTAL HEALTH

- Crawford, A. L. Communications and nursing. *Nursing Survey*, 1:27-30 passim, Oct. 1962.
- Crawford, A. L. The Joint Commission Report on mental illness and health: implications for nursing administration. *Amer. J. Psychiat.* 119:550-554, Dec. 1962.
- Dreger, R. M. Fundamentals of personality. Philadelphia: Lippincott, 1962.
- Dreger, R. M. and Dreger, C. M., eds. Behavioral classification Project Report No. 1; Report of Technical Assistance Project. Jacksonville, Florida: Jacksonville University, 1962.
- Northcutt, T. J. Jr. "Treatment outcome; a follow-up study," in *Selected Papers given at the 12th Annual Conference of North American Association of Alcoholic Programs*. Chicago: NAAAP, 1962.
- Yeager, W., Sowder, W. T., Hardy, A. V. The mental health worker: a new public health professional. *Amer. J. Public Health*, 52:1625-1630, Oct. 1962.

BUREAU OF SANITARY ENGINEERING

- Baker, R. H. Jr. "Florida future water requirements—waste waters," in *Proceedings of twenty-second annual meeting, Soil and Crop Science Society of Florida*, Nov. 1962.
- Baker, R. H. Jr. Package aeration plants in Florida. *Journal of the Sanitary Engineering Division, Proceedings of the American Society of Civil Engineers*, Vol. 88, No. SA6, Nov. 1962.
- Cross, F. L., Jr., and Lee, D. B. New incinerator standards. *Fla. Architect* 9: 6 passim, April 1962.
- Cross, F. L., Jr., Doughty, L. C. and Lee, D. B. Why hasn't Florida established emission standards for commercial incinerators? *Journal Air Pollution Control Asso.* Sept. 1962.
- Patton, V. D. Plating waste disposal. *Plating*, 49:164-167, Feb. 1962.

252 ANNUAL REPORT, 1962

BUREAU OF SPECIAL HEALTH SERVICES

Fulghum, J. E. and Klein, R. J. Community cancer demonstration project in Dade County, Florida. Pub. Health Rep. 77:165-170, Feb. 1962.

FLORIDA STATE BOARD OF HEALTH MONOGRAPHS

Johnson, A. L., Jenkins, C. D., Patrick, R., Northcutt, T. J. Jr. Epidemiology of polio vaccine acceptance. Monograph 3, Florida State Board of Health, 1962.